

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

MAXELL, LTD.,

*Plaintiff,*

v.

APPLE INC.,

*Defendant.*

Civil Action No. 6:21-cv-00158

**COMPLAINT AND DEMAND  
FOR JURY TRIAL**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Maxell, Ltd. (“Maxell”), by and through its undersigned counsel, files this complaint under 35 U.S.C. § 271 for Patent Infringement against Defendant Apple Inc. (“Apple”) and further alleges as follows, upon actual knowledge with respect to itself and its own acts, and upon information and belief as to all other matters.

**OVERVIEW**

1. This is an action for patent infringement by Maxell. Founded in 1961 as Maxell Electric Industrial Co., Ltd., Maxell is a leading global manufacturer of information storage media products, including magnetic tapes, optical discs, and battery products such as lithium ion rechargeable micro batteries and alkaline dry batteries, and the company has over 50 years of experience producing industry-leading recordable media and energy products for both the consumer and the professional markets. Maxell is also a leading manufacturer of projectors and lenses and additionally sells various other devices, such as Bluetooth headsets, wireless charging solutions, etc.

2. Maxell has built up an international reputation for excellence and reliability, for pioneering the power supplies and digital recording for today's mobile and multi-media devices, and leading the electronics industry in the fields of storage media and batteries.

3. Since being one of the first companies to develop alkaline batteries and Blu Ray camcorder discs, Maxell has always assured its customers of industry leading product innovation and is one of the world's foremost suppliers of memory, power, audio, and visual goods. Maxell's well-recognized logo and iconic "blown away" image exemplify the reputation Maxell carefully developed in these markets.



4. As more fully described below, in 2009 Hitachi, Ltd. assigned much of its consumer product-facing intellectual property to Hitachi Consumer Electronics Co., Ltd. Then, in 2013, Hitachi Consumer Electronics Co., Ltd. assigned the intellectual property, including the patents in this case, to Hitachi Maxell, Ltd., which later assigned the patents to Maxell as a result of a reorganization and name change. This reorganization was an effort to align its intellectual property with the licensing, business development, and research and development efforts of Maxell, including in the mobile and mobile-media device market (Hitachi, Ltd. and Hitachi Consumer Electronics Co., Ltd. are referred to herein collectively as "Hitachi"). Maxell continues to sell

products in the mobile device market including wireless charging solutions, wireless flash drives, multimedia players, storage devices, and headphones. Maxell also maintains intellectual property related to televisions, computer products, tablets, digital cameras, and mobile phones. As a mobile technology developer and industry leader, and due to its historical and continuous investment in research and development, including in the state of Texas, Maxell owns a portfolio of patents related to such technologies and actively enforces its patents through licensing and/or litigation. Maxell is forced to bring this action against Apple as a result of Apple's knowing and ongoing infringement of Maxell's patents as further described herein.

5. Since at least June 2013, Apple has been aware of Maxell's patents and has had numerous meetings and interactions regarding its infringement of these patents. These meetings included Apple's representatives being provided with detailed information regarding Maxell's patents, the developed technology, and Apple's ongoing use of this patented technology, including the identification of specific products that are infringing. Through this process, Apple's representatives requested and received detailed explanations regarding Maxell's patents and allegations. In 2018, for example, Maxell provided written correspondence to Apple that identified specific products and claims of Maxell patents (including claims of six of the patents asserted herein) that Apple was, and continues to infringe. A resident of Marshall, Texas, Alan Loudermilk, was involved in these extensive licensing negotiations with Apple on Maxell's behalf.

6. Maxell believed that the parties could reach a mutually beneficial solution and to that end considered a potential business transaction and continued to answer multiple inquiries from Apple over the course of several years. Apple elected, however, not to enter into an agreement and did not license Maxell's patents. Accordingly, in 2019, Maxell brought litigation against Apple asserting infringement of ten other patents from the same portfolio of which the currently asserted

patents are a part. Case No. 5:19-cv-00036-RWS (E.D. Tex.). Maxell also brought litigation against Apple asserting infringement of five other patents in 2020 in this Court. Case No. 6:20-cv-00646 (W.D. Tex.). Apple has moved for that case to be stayed pending a parallel ITC Action. Yet, Apple has still elected not to license Maxell's patents and these prior litigations remain pending. The result is that Apple has continued, and continues today, to make, use, sell and offer for sale Maxell's patented technology without license.

7. Since 2014, Maxell has had regular and continuous business in Texas. As a result of such business dealings and hopes to expand those and other business dealings, a Maxell affiliate, Maxell Research and Development America, LLC ("MRDA"), was founded in Marshall, Texas. MRDA is part of a joint venture with another business in Marshall, and the entities work together on research and development related to IoT, mobile, media and battery technologies. MRDA's ongoing projects include, for example, the research and development of lensless camera technology, which Maxell hopes will be utilized for sensor and camera technology in smartphones. Prior to the pandemic, Maxell engineers and executives would regularly travel to Marshall to meet and work to expand the research and development activities, business, and investments being made by Maxell, MRDA, and their business partners in Texas to further the goals of these companies. While these efforts continue remotely for the time being, they will continue in-person once travel restrictions are eased.

8. In addition to the litigations filed against Apple, noted above, Maxell has filed five other lawsuits in Texas in order to enforce the patent portfolio of which the currently asserted patents are a part against various smartphone manufacturers including ASUSTeK Computer Inc., Huawei Technologies Co. Ltd., and ZTE (USA) Inc. Three of the patents accused of infringement herein, including U.S. Patent Nos. 8,736,729, 6,816,491, and 8,098,695 were previously asserted

in the Eastern District of Texas against ZTE (USA), Inc., ZTE Corporation, and/or ASUSTeK Computer Inc. The prior case against and ZTE (USA) Inc., *Maxell Ltd. v. ZTE (USA) Inc.*, Case No. 5:16-cv-00179-RWS, culminated in a ten day jury trial resulting in a verdict in favor of Maxell. At this point, all of Maxell's cases, except those against Apple, have been resolved and dismissed.

### **PARTIES**

9. Plaintiff Maxell, Ltd. is a Japanese corporation with a registered place of business at 1 Koizumi, Oyamazaki, Oyamazaki-cho, Otokuni-gun, Kyoto, Japan.

10. On information and belief, Defendant Apple Inc. is a California corporation having a principal place of business located at One Apple Park Way Cupertino, California 95014 and regular and established places of business at 12545 Riata Vista Cir, Austin, Texas and 5501 W. Parmer Lane, Austin, Texas, as well as other locations in Texas (*e.g.*, 3121 Palm Way, Austin, Texas). Apple offers and sells its products and/or services, including those accused herein of infringement, to customers and potential customers located in Texas, including in the judicial Western District of Texas. Apple may be served with process through its registered agent for service in Texas: CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

### **NATURE OF THE ACTION, JURISDICTION, AND VENUE**

11. Maxell brings this action for patent infringement under the patent laws of the United States, 35 U.S.C. § 271 *et seq.*

12. This Court has subject matter jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the action arises under the patent laws of the United States.

13. This Court has personal jurisdiction over Apple. Apple conducts business and has committed acts of direct and indirect patent infringement in this District, the State of Texas, and

elsewhere in the United States. Moreover, Apple is registered to do business in the State of Texas, has offices and facilities in the State of Texas and this District, and actively directs its activities to customers located in the State of Texas and this District.

14. Venue is proper in this District pursuant to 28 U.S.C. § 1400(b). Apple has regular and established places of business in this District, including at 12545 Riata Vista Cir, Austin, Texas and 5501 W. Parmer Lane, Austin, Texas, as well as Apple Stores located at, at least, 3121 Palm Way, Austin, Texas. Thus, Apple is deemed to reside in this District, has committed acts of infringement described herein in this District, and has purposely transacted business involving the accused devices in this District. Further, there is significant local interest in view of Apple being one of the largest private employers in this District, and Apple has received a significant amount of tax subsidies in this District.

15. Given Mr. Loudermilk's role in prior licensing negotiations between Maxell and Apple, MRDA's presence in Marshall, Texas, Apple's operations throughout Texas, and the ongoing litigation concerning Maxell's patents, Texas is the most convenient venue for the parties to litigate.

**COUNT 1 - INFRINGEMENT OF U.S. PATENT NO. 10,911,719**

16. Maxell incorporates paragraphs 1-15 above by reference.

17. U.S. Patent No. 10,911,719 (the "'719 Patent," attached hereto at Exhibit 1) duly issued on February 2, 2021 and is entitled *Communication Apparatus for Transmitting and Receiving Digital Information To and From Another Communication Apparatus*.

18. Maxell is the owner by assignment of the '719 Patent and possesses all rights under the '719 Patent, including the exclusive right to recover for past and future infringement.

19. Apple has directly infringed one or more claims of the '719 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having FaceTime communication functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2<sup>nd</sup> Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688)); Apple iPads (*e.g.*, iPad mini 4 (model nos. A1538 and A1550), iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9" 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9" (3rd generation) (model nos. A1876, A1895, A2014), iPad Pro 12.9" (4th generation) (model nos. A2229, A2069, A2232), iPad Pro 11" (1st generation) (model nos. A1980, A2013, and A1934), iPad Pro 11" (2nd generation) (model nos. A2068, A2228, and A2230), iPad (5<sup>th</sup> generation) (model nos. A1822 and A1823), iPad (6<sup>th</sup> generation) (model nos. A1893 and A1954), iPad (7<sup>th</sup> gen.) (model nos. A2197, A2200, and A2198), iPad (8<sup>th</sup> gen) (model nos. A2270, A2428, A2429, and A2430), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153) iPad Air (4th generation) (model nos. A2316, A2324, A2325, and A2072)); Apple iPod Touches (*e.g.*, iPod Touch 6<sup>th</sup> generation (model no.

A1574) and iPod Touch 7<sup>th</sup> generation (model no. A2178)); and MacBook products with FaceTime functionality (*e.g.*, MacBook (model nos. 9,1 and 10,1), MacBook Air (model nos. 9,1 and 10,1), and MacBook Pro (model nos. 17,1; 16,4; 16,3; 16,2; 16,1; 15,4; 15,3; and 15,2)) (collectively, “the ’719 Accused Products”). For example, each of these products also includes hardware (*e.g.*, Wi-Fi chipset, cellular chipset, A12/A13 processor, Intel CPU, camera, and decoder) and software (*e.g.*, FaceTime application) as advertised on Apple’s website. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’719 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

20. Each of the ’719 Accused Products is a communication apparatus for transmitting and receiving digital information to and from another device. Further, each of the ’719 Accused Products includes a network interface (*e.g.*, Wi-Fi chipset or cellular chipset) to receive digital information from a server (*e.g.*, contents from iCloud or Apple TV) and additional information from another device. Further, each of the ’719 Accused Products includes a decoder, and a camera to generate video information and a display to display the video information and the information received from the server and the other device. Each of the ’719 Accused Products includes a processor (*e.g.*, A12/A13 processor, Intel CPU or cellular chipset) that receives an inbound videophone call notice (*e.g.*, FaceTime call) while displaying the digital information on the display, the processor pauses the displaying of the digital information and renders the camera operative. Further, each of the ’719 Accused Products stops display of information received from the server to display video from the other device generated based on the videophone call. For



example, the following excerpts from Apple's websites provide non-limiting examples of the '719 Accused Products infringing at least claim 1 of the '719 Patent:

## Use FaceTime with your iPhone, iPad, or iPod touch

Learn how to use FaceTime to make video and audio calls from your iPhone, iPad, or iPod touch.



You can use FaceTime over Wi-Fi<sup>1</sup> or over cellular on supported iOS or iPadOS devices<sup>2</sup>. FaceTime isn't available or might not appear on devices purchased or used in Saudi Arabia, United Arab Emirates, and Pakistan. However, with iOS 11.3 and later, FaceTime is available on iPhone, iPad, and iPod touch in Saudi Arabia. And with iOS 12.4 or later, FaceTime is available on iPhone, iPad, and iPod touch in Pakistan. [Update your device](#) to get FaceTime in Saudi Arabia and Pakistan.

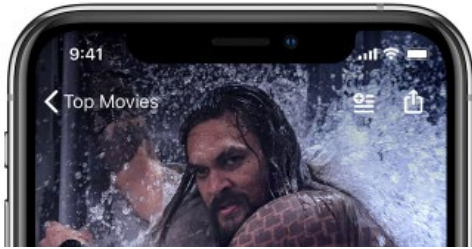
See <https://support.apple.com/en-us/HT204380>

## Buy movies and TV shows from the Apple TV app

Buy movies and TV shows, download or stream them, and watch them anywhere with the Apple TV app.

## Buy, then download or stream

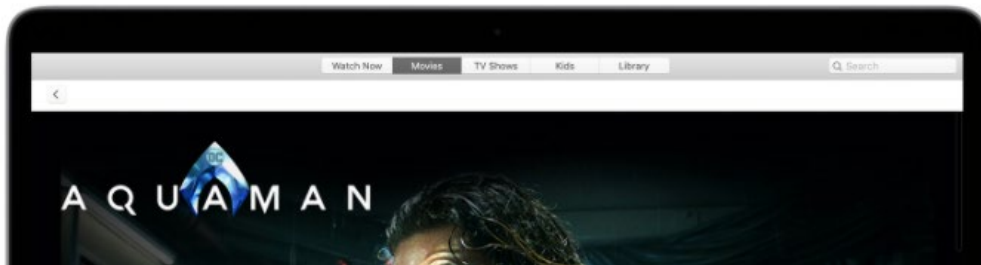
Follow the steps below for your device.



### On your iPhone, iPad, or iPod touch

Open the Apple TV app, tap the Watch Now tab, then tap a category, like Movies, TV Shows, or Kids. Or tap Search to find a specific movie or TV show.

### On your Mac

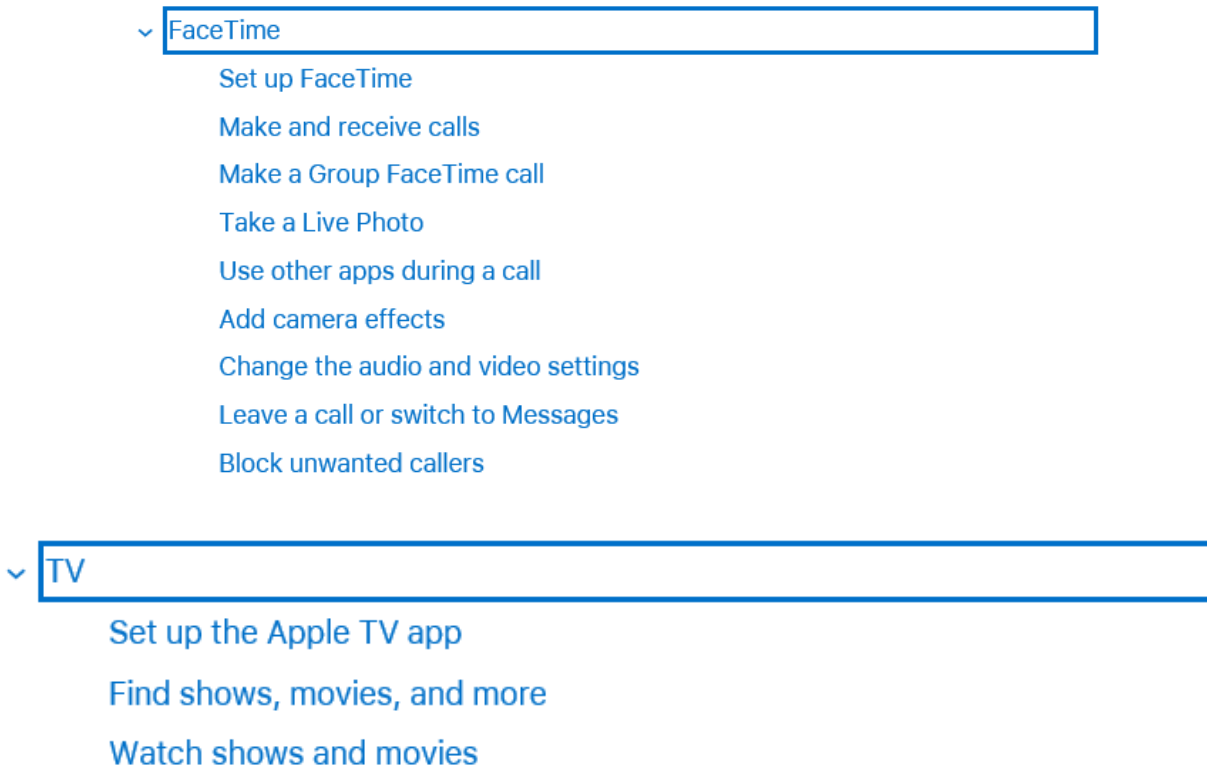


See <https://support.apple.com/en-us/HT203375#stream>

21. The foregoing features and capabilities of each of the '719 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claim 1 of the '719 Patent, under 35 U.S.C. § 271(a).

22. Apple has indirectly infringed at least claim 1 of the '719 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '719 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '719 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, or <https://support.apple.com/en-us/HT204380> or <https://support.apple.com/en-us/HT203375#stream>. For example, in the "iPhone

User Guide” Apple instructs its customers to “Set up FaceTime,” “Make and receive calls,” “Set up the Apple TV app,” “Watch shows and movies:”

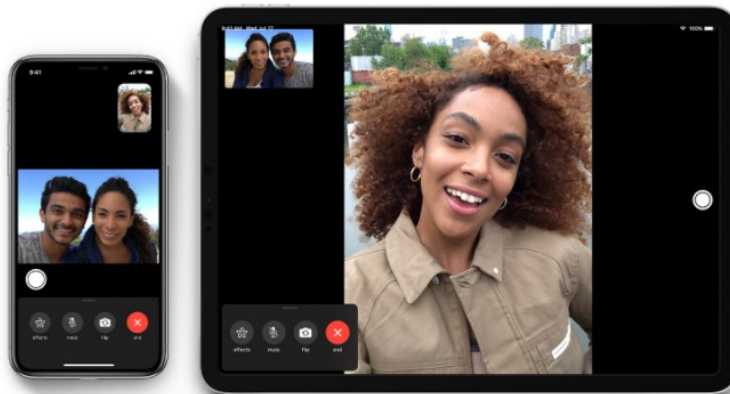


See <https://support.apple.com/guide/iphone/welcome/ios> (excerpts from iPhone User Guide)

23. Further, on its customer support webpages, Apple instructs its customers to “Use FaceTime” to make video and audio calls:

## Use FaceTime with your iPhone, iPad, or iPod touch

Learn how to use FaceTime to make video and audio calls from your iPhone, iPad, or iPod touch.



You can use FaceTime over Wi-Fi<sup>1</sup> or over cellular on supported iOS or iPadOS devices<sup>2</sup>. FaceTime isn't available or might not appear on devices purchased or used in Saudi Arabia, United Arab Emirates, and Pakistan. However, with iOS 11.3 and later, FaceTime is available on iPhone, iPad, and iPod touch in Saudi Arabia. And with iOS 12.4 or later, FaceTime is available on iPhone, iPad, and iPod touch in Pakistan. [Update your device](#) to get FaceTime in Saudi Arabia and Pakistan.

See <https://support.apple.com/en-us/HT204380>. Apple is thereby liable for infringement of the '719 Patent pursuant to 35 U.S.C. § 271(b).

24. Apple has indirectly infringed at least claim 1 of the '719 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '719 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '719 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

25. For example, the '719 Accused Products include hardware (Wi-Fi chipset, cellular chipset, transceivers, A12/A13 processor, Intel CPU, and decoder) and software (FaceTime and

Apple TV). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '719 Patent pursuant to 35 U.S.C. § 271(c).

26. The '719 Patent is a continuation of U.S. Patent No. 10,084,991, which has been asserted against Apple since at least the March 15, 2019 filing of Maxell's Complaint in Case No. 5:19-cv-00036 (E.D. Tex.). On information and belief, Apple is aware of the patents related to U.S. Patent No. 10,084,991, including the '719 Patent, and has thus been on notice of the '719 Patent since its issuance on February 2, 2021. Maxell's prior, pending case against Apple sets forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe U.S. Patent No. 10,084,991 and thus has also placed Apple on notice of its infringement of the '719 Patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '719 Patent.

27. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '719 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '719 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '719 Patent.

28. Maxell has been damaged by Apple's infringement of the '719 Patent.

**COUNT 2 - INFRINGEMENT OF U.S. PATENT NO. 10,389,978**

29. Maxell incorporates paragraphs 1-28 above by reference.

30. U.S. Patent No. 10,389,978 (the “’978 Patent,” attached hereto at Exhibit 2) duly issued on August 20, 2019 and is entitled *Communication apparatus for transmitting and receiving digital information to and from another communication apparatus*.

31. Maxell is the owner by assignment of the ’978 Patent and possesses all rights under the ’978 Patent, including the exclusive right to recover for past and future infringement.

32. Apple has directly infringed one or more claims of the ’978 Patent in this District and elsewhere in Texas, including at least claim 2 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having FaceTime communication functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2<sup>nd</sup> Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688)); Apple iPads (*e.g.*, iPad mini 4 (model nos. A1538 and A1550), iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9” 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9” (3rd generation) (model nos. A1876,

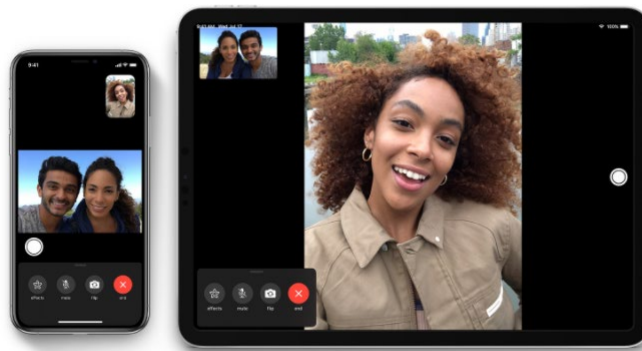
A1895, A2014), iPad Pro 12.9” (4th generation) (model nos. A2229, A2069, and A2232), iPad Pro 11” (1st generation) (model nos. A1980, A2013, and A1934), iPad Pro 11” (2nd generation) (model nos. A2068, A2228, and A2230), iPad (5<sup>th</sup> generation) (model nos. A1822 and A1823), iPad (6<sup>th</sup> generation) (model nos. A1893 and A1954), iPad (7<sup>th</sup> gen.) (model nos. A2197, A2200, and A2198), iPad (8<sup>th</sup> gen) (model nos. A2270, A2428, A2429, and A2430), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153), iPad Air (4th generation) (model nos. A2316, A2324, A2325, and A2072)); Apple iPod Touches (*e.g.*, iPod Touch 6<sup>th</sup> generation (model no. A1574) and iPod Touch 7<sup>th</sup> generation (model no. A2178)); and MacBook products with FaceTime functionality (*e.g.*, MacBook (model nos. 9,1 and 10,1), MacBook Air (model nos. 9,1 and 10,1), and MacBook Pro (model nos. 17,1; 16,4; 16,3; 16,2; 16,1; 15,4; 15,3; and 15,2)) (collectively, “the ’978 Accused Products”). For example, each of these products also includes hardware (*e.g.*, Wi-Fi chipset, cellular chipset, A12/A13 processor, Intel CPU, camera, and microphone) and software (*e.g.*, FaceTime application, Camera application) as advertised on Apple’s website. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’978 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

33. Each of the ’978 Accused Products is a communication apparatus for transmitting and receiving digital information to and from another device. Further, each of the ’978 Accused Products includes a network interface (*e.g.*, Wi-Fi chipset or cellular chipset) to receive digital information from a server (*e.g.*, contents from iCloud or iTunes) and additional information from another device. Further, each of the ’978 Accused Products includes a camera to generate video

information, a microphone to generate audio information, and a display to display the video information and the information received from the server and the other device. Further, each of the '978 Accused Products includes a processor (*e.g.*, A12/A13 processor, Intel CPU, or cellular chipset) that receives an inbound videophone call notice (*e.g.*, FaceTime call) while storing the video signal and the audio signal, the processor deactivates the storing of the video signal and audio signal. Further, each of the '978 Accused Products outputs the video information and audio information to another device and displays the digital information from the other communication apparatus. For example, the following excerpts from Apple's websites provide non-limiting examples of the '978 Accused Products infringing at least claim 2 of the '978 Patent:

### Use FaceTime with your iPhone, iPad, or iPod touch

Learn how to use FaceTime to make video and audio calls from your iPhone, iPad, or iPod touch.




You can use FaceTime over Wi-Fi<sup>1</sup> or over cellular on supported iOS or iPadOS devices<sup>2</sup>. FaceTime isn't available or might not appear on devices purchased or used in Saudi Arabia, United Arab Emirates, and Pakistan. However, with iOS 11.3 and later, FaceTime is available on iPhone, iPad, and iPod touch in Saudi Arabia. And with iOS 12.4 or later, FaceTime is available on iPhone, iPad, and iPod touch in Pakistan. [Update your device](#) to get FaceTime in Saudi Arabia and Pakistan.

See <https://support.apple.com/en-us/HT204380>



## Take videos with your iPhone camera

Use Camera  to record videos on your iPhone and change modes to take slow-motion and time-lapse videos.

*Note:* For your privacy, a green dot appears in the top-right corner of the screen when Camera is in use. See [Control access to hardware features on iPhone](#).

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### Record a video

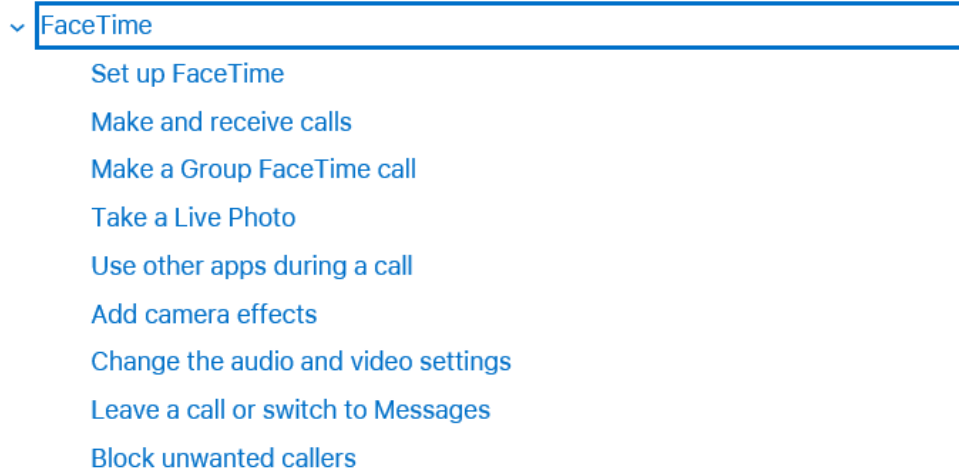
1. Choose Video mode.
2. Tap the Record button or press either volume button to start recording. While recording, you can do the following:
  - Press the white Shutter button to snap a still photo.
  - Pinch the screen to zoom in and out.
  - For a more precise zoom on [models with Dual and Triple camera systems](#), touch and hold 1x, then drag the slider to the left.
3. Tap the Record button or press either volume button to stop recording.

See <https://support.apple.com/guide/iphone/take-videos-iph61f49e4bb/ios>

34. The foregoing features and capabilities of each of the '978 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claim 2 of the '978 Patent, under 35 U.S.C. § 271(a).

35. Apple has indirectly infringed at least claim 2 of the '978 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '978 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '978 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those

located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://support.apple.com/en-us/HT204380>, or <https://support.apple.com/guide/iphone/take-videos-iph61f49e4bb/ios>. For example, in the “iPhone User Guide” Apple instructs its customers to “Set up FaceTime,” “Make and receive calls.”



See <https://support.apple.com/guide/iphone/welcome/ios> (excerpt from iPhone User Guide).

36. Further, on its customer support webpages, Apple instructs its customers to “Use FaceTime” to make video and audio calls and also instructs customers to “Record a video”:

## Use FaceTime with your iPhone, iPad, or iPod touch

Learn how to use FaceTime to make video and audio calls from your iPhone, iPad, or iPod touch.



You can use FaceTime over Wi-Fi<sup>1</sup> or over cellular on supported iOS or iPadOS devices<sup>2</sup>. FaceTime isn't available or might not appear on devices purchased or used in Saudi Arabia, United Arab Emirates, and Pakistan. However, with iOS 11.3 and later, FaceTime is available on iPhone, iPad, and iPod touch in Saudi Arabia. And with iOS 12.4 or later, FaceTime is available on iPhone, iPad, and iPod touch in Pakistan. [Update your device](#) to get FaceTime in Saudi Arabia and Pakistan.

See <https://support.apple.com/en-us/HT204380>; see also

<https://support.apple.com/guide/iphone/take-videos-iph61f49e4bb/ios>. Apple is thereby liable for infringement of the '978 Patent pursuant to 35 U.S.C. § 271(b).

37. Apple has indirectly infringed at least claim 2 of the '978 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '978 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '978 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

38. For example, the '978 Accused Products include hardware (Wi-Fi chipset, cellular chipset, transceivers, A12/A13 processor, Intel CPU, camera, and microphone) and software

(FaceTime, Camera application, and iMovie). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '978 Patent pursuant to 35 U.S.C. § 271(c).

39. The '978 Patent is a continuation of U.S. Patent No. 10,084,991, which has been asserted against Apple since at least the March 15, 2019 filing of Maxell's Complaint in Case No. 5:19-cv-00036 (E.D. Tex.). On information and belief, Apple is aware of the patents related to U.S. Patent No. 10,084,991, including the '978 Patent, and has thus been on notice of the '978 Patent since its issuance on August 20, 2019. Maxell's prior, pending case against Apple sets forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe U.S. Patent No. 10,084,991 and thus has also placed Apple on notice of its infringement of the '978 Patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 2 of the '978 Patent.

40. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '978 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '978 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '978 Patent.

41. Maxell has been damaged by Apple's infringement of the '978 Patent.

**COUNT 3 - INFRINGEMENT OF U.S. PATENT NO. 8,736,729**

42. Maxell incorporates paragraphs 1-41 above by reference.

43. U.S. Patent No. 8,736,729 (the “’729 Patent,” attached hereto at Exhibit 3) duly issued on May 27, 2014 and is entitled *Electric Camera*.

44. Maxell is the owner by assignment of the ’729 Patent and possesses all rights under the ’729 Patent, including the exclusive right to recover for past and future infringement.

45. The patentability of the ’729 Patent was challenged in IPR2018-00238, wherein the Patent Trial and Appeal Board was asked to consider the teachings of prior art (*e.g.*, U.S. Patent Nos. 5,828,406, 5,440,343, 5,497,192, 6,512,541 and 5,493,335) in a challenge to the validity of claims 1-4. In response, the Patent Trial and Appeal Board denied the petition, finding that “Petitioner has not demonstrated a reasonable likelihood that at least one of the challenged claims is unpatentable based on the asserted grounds.”

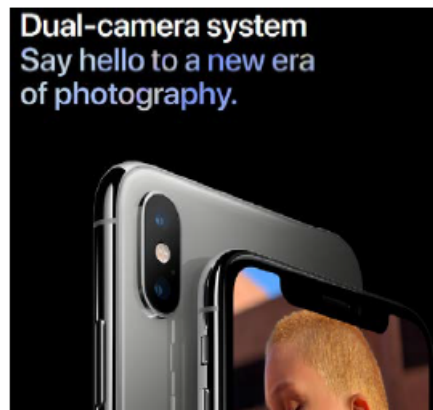
46. Apple has directly infringed one or more claims of the ’729 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13, including, without limitation, the Apple iPhones (*e.g.*, iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688), iPhone 6 Plus (model nos. A1522

and A1524), iPhone 6 (model nos. A1549 and A1586), iPhone SE (model nos. A1723 and A1662), iPhone 5s (model nos. A1453 and A1533), and iPhone 5c (model nos. A1456 and A1532)); Apple iPads (*e.g.*, iPad mini 2 (model nos. A1489 and A1490), iPad mini 3 (model nos. A1599 and A1600), iPad mini 4 (model nos. A1538 and A1550), iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9” 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9” (3rd generation) (model nos. A1876, A1895, and A2014), iPad Pro (10.5”) (model nos. A1701 and A1709), iPad Pro (12.9”) (model nos. A1584 and A1652), iPad Pro (9.7”) (model nos. A1673, A1674, and A1675), iPad Pro 11” (1st generation) (model nos. A1980, A2013, and A1934), iPad (5<sup>th</sup> generation) (model nos. A1822 and A1823), iPad (6<sup>th</sup> generation) (model nos. A1893 and A1954), iPad (7<sup>th</sup> gen.) (model nos. A2197, A2200, and A2198), iPad Air (model nos. A1474 and A1475), iPad Air 2 (model nos. A1566 and A1567), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153)); and Apple iPod Touches (*e.g.*, iPod Touch 5th generation (model nos. A1509 and A1421) and iPod Touch 6<sup>th</sup> generation (model no. A1574)) (collectively, “the ’729 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’729 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

47. Each of the ’729 Accused Products includes front and rear-facing cameras, each of which incorporates a light-receiving sensor or imaging sensor (*e.g.*, CMOS sensor) with an array of pixels arranged vertically and horizontally in a grid pattern. Each of the ’729 Accused Products can record an image in a static mode, for example recording photographs and snapshots in photo camera modes, and in a moving video mode, for example recording a video clip in video camera

mode. Further, each of the '729 Accused Products implements multiple viewing angles based on the implemented camera modes.

48. Further, each of the '729 Accused Products includes a processor (*e.g.*, A12/A13 chip and/or ISP) that processes signals from one or more cameras and sensors to generate image signals for displaying on each of the '729 Accused Products' display, where the generated image can be manipulated in accordance with a select pixel arrangement and/or image stabilization correction factor using a portion of the pixel lines available. For example, the following excerpts from Apple's websites provide non-limiting examples of each of the '729 Accused Products infringing at least claim 1 of the '729 Patent by way of implementing a dual-camera system, CMOS sensors, and an image signal processor that arranges an array of pixels in a grid pattern and processes the pixels for each of a static image mode (*e.g.*, still pictures), monitoring mode (*e.g.*, preview of pictures/videos), and moving video mode (*e.g.*, videos):



**Sensors, processors, algorithms, and you.** An innovative dual-camera system integrates the ISP, the Neural Engine, and advanced algorithms to unlock new creative possibilities and help you capture incredible photos.



See <https://www.apple.com/iphone-xs/cameras/>

Featuring the Fastest, Most Powerful Chip Ever in a Smartphone, Plus an All-New Dual-Camera System and Even Longer All-Day Battery Life





iPhone 11 shoots beautifully sharp video, with both the Ultra Wide and Wide cameras supporting 4K video with extended dynamic range for more highlight detail and cinematic video stabilization. With a wider field of view and large focal plane, users can shoot detailed action videos with the Ultra Wide camera.

<https://www.apple.com/newsroom/2019/09/apple-introduces-dual-camera-iphone-11/>

49. The foregoing features and capabilities of each of the '729 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claim 1 of the '729 Patent, under 35 U.S.C. § 271(a).

50. Apple has indirectly infringed at least claim 1 of the '729 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '729 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '729 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://www.apple.com/iphone-xs/cameras/>, <https://www.apple.com/iphone/#dual-cameras>, <https://support.apple.com/guide/iphone/take-videos-iph61f49e4bb/ios>, or <https://support.apple.com/guide/iphone/take-photos-iph263472f78/13.0/ios/13.0>. For example, in the "iPhone User Guide" Apple instructs its customers to "Take photos," "Take videos," "Take Portrait mode photos," and "Take Apple ProRAW photos."


Camera

- Take photos
- Take videos
- Take Portrait mode photos
- Take Apple ProRAW photos
- Use Camera settings
- Adjust HDR camera settings
- View, share, and print photos
- Scan a QR code

See <https://support.apple.com/guide/iphone/welcome/ios> (excerpt from iPhone User Guide).

51. Further, on its website, Apple instructs its customers to “Record a video” and “Take photos with your iPhone camera”:

## Take videos with your iPhone camera

Use Camera  to record videos on your iPhone and change modes to take slow-motion and time-lapse videos.

*Note:* For your privacy, a green dot appears in the top-right corner of the screen when Camera is in use. See [Control access to hardware features on iPhone](#).

### Record a video

1. Choose Video mode.
2. Tap the Record button or press either volume button to start recording. While recording, you can do the following:
  - Press the white Shutter button to snap a still photo.
  - Pinch the screen to zoom in and out.
  - For a more precise zoom on [models with Dual and Triple camera systems](#), touch and hold 1x, then drag the slider to the left.
3. Tap the Record button or press either volume button to stop recording.

See <https://support.apple.com/guide/iphone/take-videos-iph61f49e4bb/ios>

## Take photos with the camera on iPhone

Learn how to take great photos with Camera 📷 on your iPhone. Choose from camera modes such as Photo, Video, Pano, Time-lapse, Slo-mo, and Portrait (on [supported models](#)). Enhance your photos with camera features such as Night mode, Live Photos, filters, and Burst.

🗣️ Ask Siri. Say something like: "Open Camera." [Learn how to ask Siri.](#)



<https://support.apple.com/guide/iphone/take-photos-iph263472f78/13.0/ios/13.0>. Apple is thereby liable for infringement of the '729 Patent pursuant to 35 U.S.C. § 271(b).

52. Apple has indirectly infringed at least claim 1 of the '729 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '729 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '729 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

53. For example, the '729 Accused Products include an image-instability detector and sensors in front and rear-facing cameras with an array of pixels arranged vertically and horizontally in a grid pattern. These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material

part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '729 Patent pursuant to 35 U.S.C. § 271(c).

54. Apple has been on notice of the '729 Patent since, at least, May 17, 2018, based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '729 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '729 Patent.

55. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '729 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least May 17, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '729 Patent, and that the '729 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '729 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '729 Patent.

56. Maxell has been damaged by Apple's infringement of the '729 Patent.

**COUNT 4 - INFRINGEMENT OF U.S. PATENT NO. 6,816,491**

57. Maxell incorporates paragraphs 1-56 above by reference.

58. U.S. Patent No. 6,816,491 (the “’491 Patent,” attached hereto at Exhibit 4) duly issued on November 9, 2004 and is entitled *Multiplexed audio data decoding apparatus and receiver apparatus*.

59. Maxell is the owner by assignment of the ’491 Patent and possesses all rights under the ’491 Patent, including the exclusive right to recover for past and future infringement.

60. The patentability of the ’491 Patent was challenged in IPR2018-00239, wherein the Patent Trial and Appeal Board was asked to consider the teachings of prior art (*e.g.*, U.S. Patent Nos. 5,765,136, 6,337,715, 6,031,577, and Japanese Patent Application Publication No. Hei 6-295195) in a challenge to the validity of claims 1, 2, and 7-9. In response, the Patent Trial and Appeal Board denied the petition, finding that “Petitioner has not demonstrated a reasonable likelihood that Petitioner would prevail in showing at least one of the challenged claims of the ’491 patent is unpatentable based on any asserted ground of unpatentability.”

61. Apple has directly infringed one or more claims of the ’491 Patent in this District and elsewhere in Texas, including at least claims 7 and 8 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13, including, without limitation, the Apple iPhones (*e.g.*, (*e.g.*, iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688), iPhone 6 Plus

(model nos. A1522 and A1524), iPhone 6 (model nos. A1549 and A1586), iPhone SE (model nos. A1723 and A1662), iPhone 5s (model nos. A1453 and A1533), and iPhone 5c (model nos. A1456 and A1532)); Apple iPads (*e.g.*, iPad mini 2 (model nos. A1489 and A1490), iPad mini 3 (model nos. A1599 and A1600), iPad mini 4 (model nos. A1538 and A1550), iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9” 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9” (3rd generation) (model nos. A1876, A1895, A2014), iPad Pro (10.5”) (model nos. A1701 and A1709), iPad Pro (12.9”) (model nos. A1584 and A1652), iPad Pro (9.7”) (model nos. A1673, A1674, and A1675), iPad Pro 11” (1st generation) (A1980, A2013, A1934), iPad (5<sup>th</sup> generation) (model nos. A1822 and A1823), iPad (6<sup>th</sup> generation) (model nos. A1893 and A1954), iPad (7<sup>th</sup> gen.) (model nos. A2197, A2200, and A2198), iPad Air (model nos. A1474 and A1475), iPad Air 2 (model nos. A1566 and A1567), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153)); Apple iPod Touches (*e.g.*, iPod Touch 5th generation (model nos. A1509 and A1421) and iPod Touch 6<sup>th</sup> generation (model no. A1574)); and MacBook products with FaceTime functionality (*e.g.*, MacBook (model nos. 9,1 and 10,1), MacBook Air (model nos. 8,2; 8,1; and 7,2), and MacBook Pro (model nos. 16,4; 16,1; 15,4; 15,3; and 15,2)) (collectively, “the ’491 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’491 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

62. Each of the ’491 Accused Products is observed receiving encoded data, *e.g.* multimedia and/or audio-video files, which are compressed, encoded, in multiple formats, and containing multiplexed audio data sequences. Further, each of the ’491 Accused Products includes

a processor programmed to demultiplex the audio data sequence from the multimedia or audio-video files selected by the user, and decode the encoded data using information included in the audio data sequence. The information in the audio data sequence provides instructions on the type of encoding and compression associated with the corresponding multiplexed audio data sequence, such that processor and/or CPU will retrieve and read the appropriate decoding algorithm from memory and decode the corresponding audio data sequence. When a different decoding algorithm is required, the processor and/or CPU will then retrieve a different decoding algorithm for decoding. For example, the following excerpts from Apple's websites provide non-limiting examples of the '491 Accused Products infringing at least claims 7 and 8 of the '491 Patent by implementing various audio decoders to support a variety of audio formats and/or audio functions such as using m4a for recording "Voice Memos," using AAC for FaceTime, using MP3 for Podcast such that when the '491 Accused Products switch from one function to another, a different audio decoder is used to process the audio:

#### **Audio Calling<sup>5</sup>**

- FaceTime audio
- Voice over LTE (VoLTE)<sup>4</sup>
- Wi-Fi calling<sup>4</sup>

#### **Audio Playback**

- Audio formats supported: AAC-LC, HE-AAC, HE-AAC v2, Protected AAC, MP3, Linear PCM, Apple Lossless, FLAC, Dolby Digital (AC-3), Dolby Digital Plus (E-AC-3), Dolby Atmos, and Audible (formats 2, 3, 4, Audible Enhanced Audio, AAX, and AAX+)

See [https://support.apple.com/kb/SP779?locale=en\\_US](https://support.apple.com/kb/SP779?locale=en_US) (iPhone XS Technical Specifications)

### **Built-in Apps**



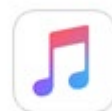
TV



Podcasts



Voice Memo



Music



Siri



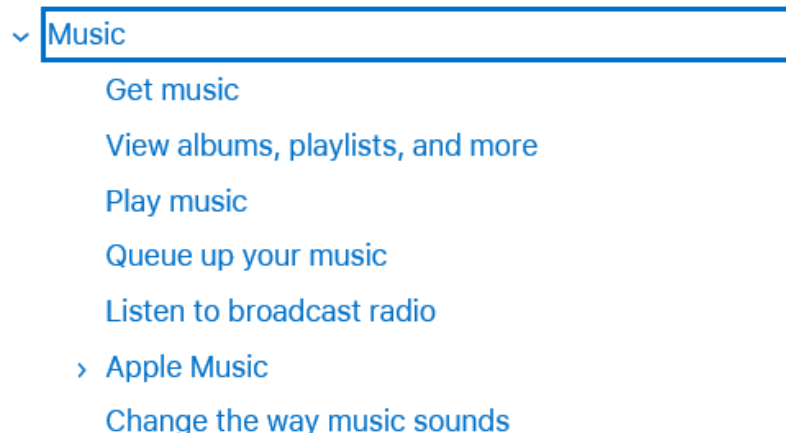
FaceTime

See <https://www.apple.com/iphone-11/specs/>

63. The foregoing features and capabilities of each of the '491 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claims 7 and 8 of the '491 Patent, under 35 U.S.C. § 271(a).

64. Apple has indirectly infringed at least claims 7 and 8 of the '491 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '491 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '491 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://support.apple.com/en-us/HT201859>, <https://support.apple.com/en-us/HT204380>, and <https://support.apple.com/guide/iphone/set-up-the-apple-tv-app-iph8b33d895/13.0/ios/13.0>.

65. For example, in the "iPhone User Guide" Apple instructs its customers to "Play Music," "Listen to broadcast radio," "Play podcasts," and "Make and receive calls."





✓ Podcasts

Find podcasts

Play podcasts

Manage your subscriptions and library

✓ FaceTime

Set up FaceTime

Make and receive calls

Make a Group FaceTime call

Take a Live Photo

Use other apps during a call

Add camera effects

Change the audio and video settings

Leave a call or switch to Messages

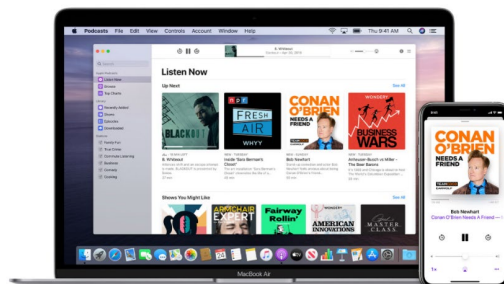
Block unwanted callers

See <https://support.apple.com/guide/iphone/welcome/ios> (excerpts from “iPhone User Guide”)

66. Further, on its website, Apple instructs its customers to “Listen with Apple Podcasts,” “Use FaceTime,” “Listen to music,” and “Set up the Apple TV app on iPhone”:

### Listen with Apple Podcasts

Discover free audio stories that entertain, inform, and inspire in Apple Podcasts.



Use the Apple Podcasts app on your iPhone, iPad, and iPod touch with the latest version of iOS or iPadOS, on your Mac with macOS Catalina, or on your Apple TV.

<https://support.apple.com/en-us/HT201859>

## Use FaceTime with your iPhone, iPad, or iPod touch

Learn how to use FaceTime to make video and audio calls from your iPhone, iPad, or iPod touch.

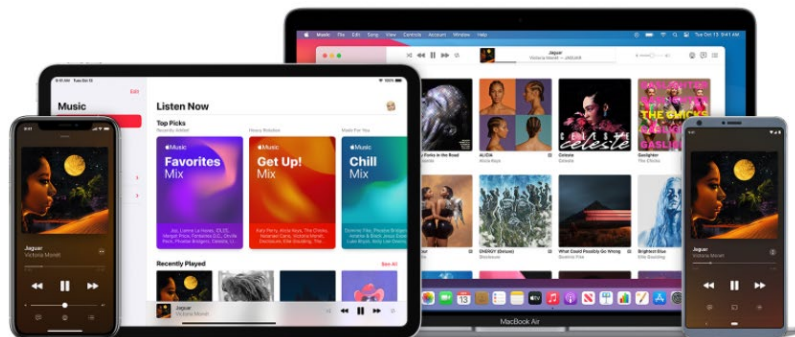


You can use FaceTime over Wi-Fi<sup>1</sup> or over cellular on supported iOS or iPadOS devices<sup>2</sup>. FaceTime isn't available or might not appear on devices purchased or used in Saudi Arabia, United Arab Emirates, and Pakistan. However, with iOS 11.3 and later, FaceTime is available on iPhone, iPad, and iPod touch in Saudi Arabia. And with iOS 12.4 or later, FaceTime is available on iPhone, iPad, and iPod touch in Pakistan. [Update your device](#) to get FaceTime in Saudi Arabia and Pakistan.

See <https://support.apple.com/en-us/HT204380>


## Listen to music and more in the Apple Music app

The Apple Music app is your one place to manage and listen to your music library. And if you subscribe to Apple Music, you can stream millions of songs, discover new music to add to your collection, and access your music library on your other devices.



<https://support.apple.com/en-us/HT204951>

## Set up the Apple TV app on iPhone

With the Apple TV app , you can watch Apple TV+ originals as well as your other favorite shows, movies, sports, and live news. Subscribe to Apple TV channels such as HBO and Showtime, watch titles from streaming services and cable providers, and purchase or rent movies and TV shows. The Apple TV app is on your iPhone, iPad, iPod touch, Mac, Apple TV, and supported smart TVs and streaming devices, so you can watch at home or wherever you go.

<https://support.apple.com/guide/iphone/set-up-the-apple-tv-app-iph8b33d895/13.0/ios/13.0>

Apple is thereby liable for infringement of the '491 Patent pursuant to 35 U.S.C. § 271(b).

67. Apple has indirectly infringed at least claims 7 and 8 of the '491 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '491 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '491 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

68. For example, the '491 Accused Products include a decoder that supports multiplexed audio/video packets in the form of at least AAC-LC, HE-AAC, HE-AAC v2, Protected AAC, MP3, FLAC, AC-3, etc. These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '491 Patent pursuant to 35 U.S.C. § 271(c).

69. Apple has been on notice of the '491 Patent since, at least, May 17, 2018, based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe

certain of Maxell's patents, and specifically identified the '491 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 7 and 8 of the '491 Patent.

70. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '491 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least May 17, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '491 Patent, and that the '491 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '491 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '491 Patent.

71. Maxell has been damaged by Apple's infringement of the '491 Patent.

**COUNT 5 - INFRINGEMENT OF U.S. PATENT NO. 8,098,695**

72. Maxell incorporates paragraphs 1-71 above by reference.

73. U.S. Patent No. 8,098,695 (the "'695 Patent," attached hereto at Exhibit 5) duly issued on January 17, 2012 and is entitled Multiplexed audio data decoding apparatus and receiver apparatus.

74. Maxell is the owner by assignment of the '695 Patent and possesses all rights under the '695 Patent, including the exclusive right to recover for past and future infringement.

75. Apple has directly infringed one or more claims of the '695 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents,

by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13, including, without limitation, the Apple iPhones (*e.g.*, iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688), iPhone 6 Plus (model nos. A1522 and A1524), iPhone 6 (model nos. A1549 and A1586), iPhone SE (model nos. A1723 and A1662), iPhone 5s (model nos. A1453 and A1533), and iPhone 5c (model nos. A1456 and A1532)); Apple iPads (*e.g.*, iPad mini 2 (model nos. A1489 and A1490), iPad mini 3 (model nos. A1599 and A1600), iPad mini 4 (model nos. A1538 and A1550), iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9" 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9" (3rd generation) (model nos. A1876, A1895, A2014), iPad Pro (10.5") (model nos. A1701 and A1709), iPad Pro (12.9") (model nos. A1584 and A1652), iPad Pro (9.7") (model nos. A1673, A1674, and A1675), iPad Pro 11" (1st generation) (model nos. A1980, A2013, and A1934), iPad (5<sup>th</sup> generation) (model nos. A1822 and A1823), iPad (6<sup>th</sup> generation) (model nos. A1893 and A1954), iPad (7<sup>th</sup> gen.) (model nos. A2197, A2200, and A2198), iPad Air (model nos. A1474 and A1475), iPad Air 2 (model nos. A1566 and A1567), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153)); Apple iPod Touches (*e.g.*, iPod Touch 5th generation (model nos. A1509 and A1421) and iPod Touch 6<sup>th</sup> generation (model no. A1574)); and MacBook products with FaceTime functionality (*e.g.*, MacBook (model nos. 9,1 and 10,1), MacBook Air (model nos. 8,2; 8,1; and

7,2), and MacBook Pro (model nos. 16,4; 16,1; 15,4; 15,3; and 15,2)) (collectively, “the ’695 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’695 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

76. Each of the ’695 Accused Products is observed receiving encoded data, *e.g.* multimedia and/or audio-video files, which are compressed, encoded, in multiple formats, and containing multiplexed audio data sequences. Further, each of the ’695 Accused Products includes a processor programmed to demultiplex the audio data sequence from the multimedia or audio-video files selected by the user, and decode the encoded data using information included in the audio data sequence. The information in the audio data sequence provides instructions on the type of encoding and compression associated with the corresponding multiplexed audio data sequence, such that processor and/or CPU will retrieve and read the appropriate decoding algorithm from memory and decode the corresponding audio data sequence. When a different decoding algorithm is required, the processor and/or CPU will then retrieve a different decoding algorithm for decoding. For example, the following excerpts from Apple’s websites provide non-limiting examples of the ’695 Accused Products infringing at least claim 1 of the ’695 Patent by implementing various audio decoders to support a variety of audio formats and/or audio functions such as using m4a for recording “Voice Memos,” using AAC for FaceTime, using MP3 for Podcast such that when the ’695 Accused Products switch from one function to another, a different audio decoder is used to process the audio:

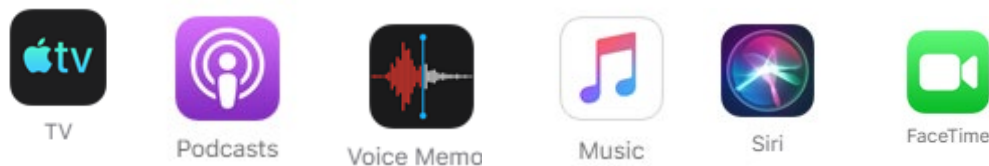
**Audio Calling<sup>5</sup>**

- FaceTime audio
- Voice over LTE (VoLTE)<sup>4</sup>
- Wi-Fi calling<sup>4</sup>

**Audio Playback**

- Audio formats supported: AAC-LC, HE-AAC, HE-AAC v2, Protected AAC, MP3, Linear PCM, Apple Lossless, FLAC, Dolby Digital (AC-3), Dolby Digital Plus (E-AC-3), Dolby Atmos, and Audible (formats 2, 3, 4, Audible Enhanced Audio, AAX, and AAX+)

See [https://support.apple.com/kb/SP779?locale=en\\_US](https://support.apple.com/kb/SP779?locale=en_US) (iPhone XS Technical Specifications)

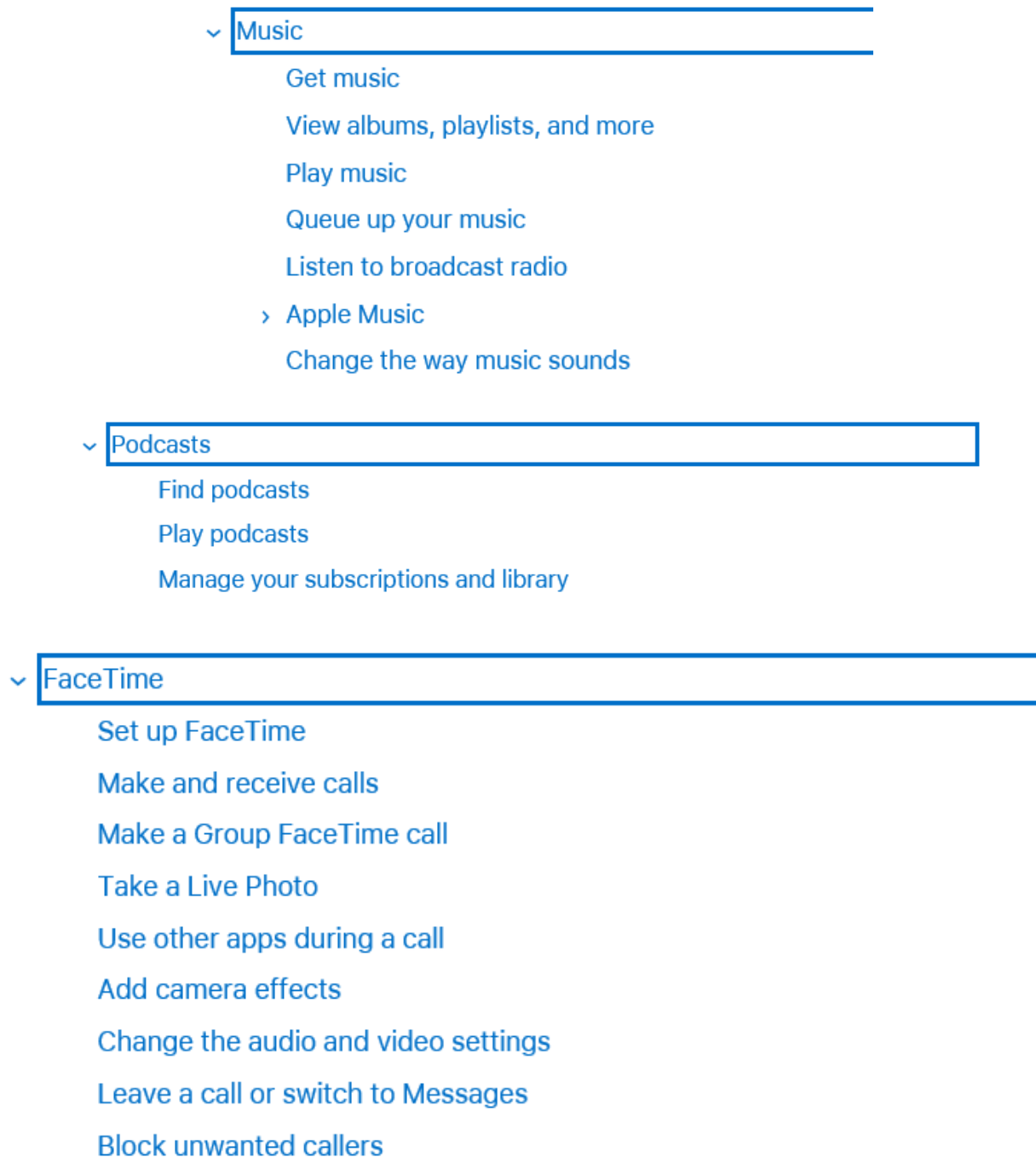
**Built-in Apps**

See <https://www.apple.com/iphone-11/specs/>

77. The foregoing features and capabilities of each of the '695 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claim 1 of the '695 Patent, under 35 U.S.C. § 271(a).

78. Apple has indirectly infringed at least claim 1 of the '695 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '695 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '695 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://support.apple.com/en-us/HT201859>, <https://support.apple.com/en-us/HT204380>, and <https://support.apple.com/guide/iphone/set-up-the-apple-tv-app-iph8b33d895/13.0/ios/13.0>.

79. For example, in the “iPhone User Guide” Apple instructs its customers to “Play Music,” “Listen to broadcast radio,” “Play podcasts,” and “Make and receive calls.”



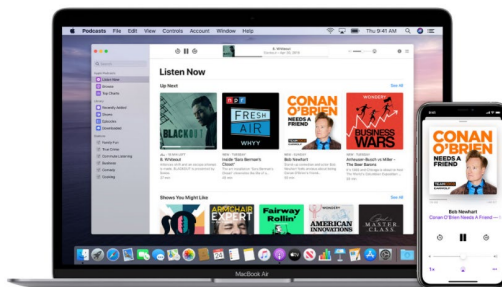
See <https://support.apple.com/guide/iphone/welcome/ios> (excerpts from “iPhone User Guide”)



80. Further, on its website, Apple instructs its customers to “Listen with Apple Podcasts,” “Use FaceTime,” “Listen to music,” and “Set up the Apple TV app on iPhone”:

### Listen with Apple Podcasts

Discover free audio stories that entertain, inform, and inspire in Apple Podcasts.



Use the Apple Podcasts app on your iPhone, iPad, and iPod touch with the [latest version of iOS or iPadOS](#), on your Mac with [macOS Catalina](#), or on your Apple TV.

<https://support.apple.com/en-us/HT201859>

### Use FaceTime with your iPhone, iPad, or iPod touch

Learn how to use FaceTime to make video and audio calls from your iPhone, iPad, or iPod touch.

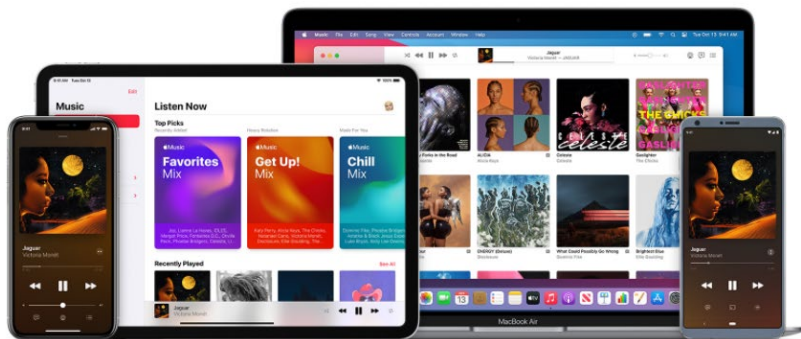


You can use FaceTime over Wi-Fi<sup>1</sup> or over cellular on supported iOS or iPadOS devices<sup>2</sup>. FaceTime isn't available or might not appear on devices purchased or used in Saudi Arabia, United Arab Emirates, and Pakistan. However, with iOS 11.3 and later, FaceTime is available on iPhone, iPad, and iPod touch in Saudi Arabia. And with iOS 12.4 or later, FaceTime is available on iPhone, iPad, and iPod touch in Pakistan. [Update your device](#) to get FaceTime in Saudi Arabia and Pakistan.

See <https://support.apple.com/en-us/HT204380>


## Listen to music and more in the Apple Music app

The Apple Music app is your one place to manage and listen to your music library. And if you subscribe to Apple Music, you can stream millions of songs, discover new music to add to your collection, and access your music library on your other devices.



<https://support.apple.com/en-us/HT204951>

## Set up the Apple TV app on iPhone

With the Apple TV app , you can watch Apple TV+ originals as well as your other favorite shows, movies, sports, and live news. Subscribe to Apple TV channels such as HBO and Showtime, watch titles from streaming services and cable providers, and purchase or rent movies and TV shows. The Apple TV app is on your iPhone, iPad, iPod touch, Mac, Apple TV, and supported smart TVs and streaming devices, so you can watch at home or wherever you go.

<https://support.apple.com/guide/iphone/set-up-the-apple-tv-app-iph8b33d895/13.0/ios/13.0>

Apple is thereby liable for infringement of the '695 Patent pursuant to 35 U.S.C. § 271(b).

81. Apple has indirectly infringed at least claim 1 of the '695 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '695 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '695 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

82. For example, the '695 Accused Products include a decoder that supports multiplexed audio/video packets in the form of at least AAC-LC, HE-AAC, HE-AAC v2, Protected AAC, MP3, FLAC, AC-3, etc. These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '695 Patent pursuant to 35 U.S.C. § 271(c).

83. Apple has been on notice of the '695 Patent since, at least, May 17, 2018, based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '695 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '695 Patent.

84. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '695 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least May 17, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '695 Patent, and that the '695 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '695 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '695 Patent.

85. Maxell has been damaged by Apple's infringement of the '695 Patent.

**COUNT 6 - INFRINGEMENT OF U.S. PATENT NO. 7,551,209**

86. Maxell incorporates paragraphs 1-85 above by reference.

87. U.S. Patent No. 7,551,209 (the "'209 Patent," attached hereto at Exhibit 6) duly issued on June 23, 2009 and is entitled *Imaging apparatus and method for controlling white balance*.

88. Maxell is the owner by assignment of the '209 Patent and possesses all rights under the '209 Patent, including the exclusive right to recover for past and future infringement.

89. Apple has directly infringed one or more claims of the '209 Patent in this District and elsewhere in Texas, including at least claim 3 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2nd Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688), iPhone 6 Plus (model nos. A1522 and A1524), iPhone 6 (model nos. A1549 and A1586), iPhone SE (model nos. A1723 and A1662), iPhone 5s (model nos. A1453

and A1533), and iPhone 5c (model nos. A1456 and A1532)); Apple iPads (e.g., iPad mini 2 (model nos. A1489 and A1490), iPad mini 3 (model nos. A1599 and A1600), iPad mini 4 (model nos. A1538 and A1550), iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9” 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9” (3rd generation) (model nos. A1876, A1895, and A2014), iPad Pro 12.9” (4th generation) (model nos. A2229, A2069, and A2232), iPad Pro (10.5”) (model nos. A1701 and A1709), iPad Pro (12.9”) (model nos. A1584 and A1652), iPad Pro (9.7”) (model nos. A1673, A1674, and A1675), iPad Pro 11” (1st generation) (model nos. A1980, A2013, and A1934), iPad Pro 11” (2nd generation) (model nos. A2068, A2228, and A2230), iPad (5th generation) (model nos. A1822 and A1823), iPad (6th generation) (model nos. A1893 and A1954), iPad (7th gen.) (model nos. A2197, A2200, and A2198), iPad (8th gen) (model nos. A2270, A2428, A2429, and A2430), iPad Air (model nos. A1474 and A1475), iPad Air 2 (model nos. A1566 and A1567), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153), iPad Air (4th generation) (model nos. A2316, A2324, A2325, and A2072)); and Apple iPod Touches (e.g., iPod Touch 5th generation (model nos. A1509 and A1421), iPod Touch 6th generation (model no. A1574) and iPod Touch 7th generation (model no. A2178)) (collectively, “the ’209 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’209 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

90. Each of the ’209 Accused Products is an imaging apparatus that includes object distance detecting means (e.g., component for implementing “Depth Control”) for detecting distance of an object being imaged, a zoom value detecting means (e.g., Camera zoom controller)

for detecting a zoom value, an object brightness detection means (*e.g.*, Ambient sensor and/or ISP) for detecting brightness of the object, white balance controlling means (*e.g.*, ISP) for correcting the color properties/white balance of images based on object distance, zoom, and brightness. For example, the following excerpts from Apple's websites provide non-limiting examples of the '209 Accused Products infringing at least claim 3 of the '209 Patent:

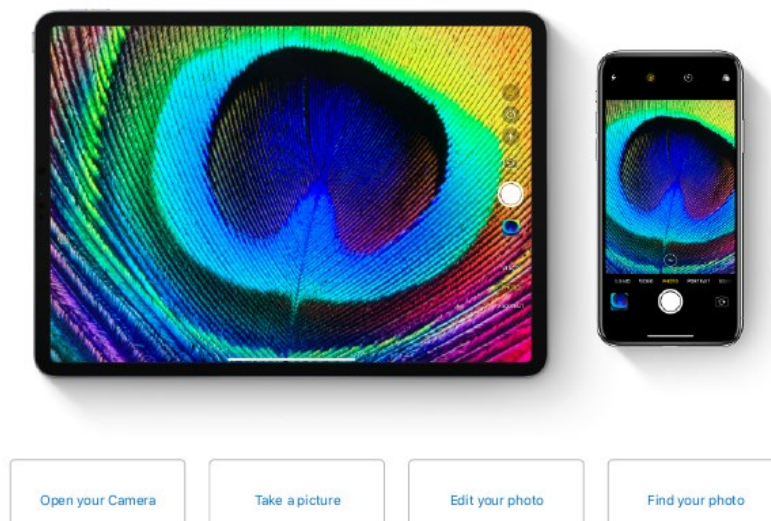
## Use camera modes on your iPhone, iPad, and iPod touch

Learn how to use Portrait, pano, slo-mo, and other camera modes on your device.

See <https://support.apple.com/en-us/HT207260>

## Take and edit photos with your iPhone, iPad, and iPod touch

Learn how to take detailed photos with the Camera on your iPhone, iPad, and iPod touch. Then make the moment look just right with the powerful editing tools built directly into your device.



See <https://support.apple.com/en-us/HT205659>

## Use Night mode on your iPhone

On supported iPhone models, you can use Night mode to capture photos when the camera detects a low-light environment.

You can use Night mode on: iPhone 12, iPhone 12 mini, iPhone 12 Pro, iPhone 12 Pro Max, iPhone 11, iPhone 11 Pro, and iPhone 11 Pro Max.

<https://support.apple.com/en-us/HT211306>

## Use Portrait mode on your iPhone

With Portrait mode, the camera creates a depth-of-field effect, which lets you capture photos with a sharp focus on the subject and a blurred background.

Before you get started, make sure that you have the [latest version of iOS](#), and that you have an [iPhone that supports Portrait mode](#).

<https://support.apple.com/en-us/HT208118>

## About Apple ProRAW

On iPhone 12 Pro and iPhone 12 Pro Max with iOS 14.3 or later, you can take photos in Apple ProRAW, which gives you greater creative control when editing photos.

Apple ProRAW combines the information of a standard RAW format along with iPhone image processing, which gives you more flexibility when editing the exposure, color, and white balance in your photo. With iOS 14.3 or later, your iPhone 12 Pro and iPhone 12 Pro Max can capture images in ProRAW format using any of its cameras, including when also using the Smart HDR, Deep Fusion, or Night mode features.\* You can edit ProRAW photos in the Photos app and other third-party photo apps.

\* You can't use ProRAW with Live Photos, in Portrait mode, or when shooting video.

<https://support.apple.com/en-us/HT211965>

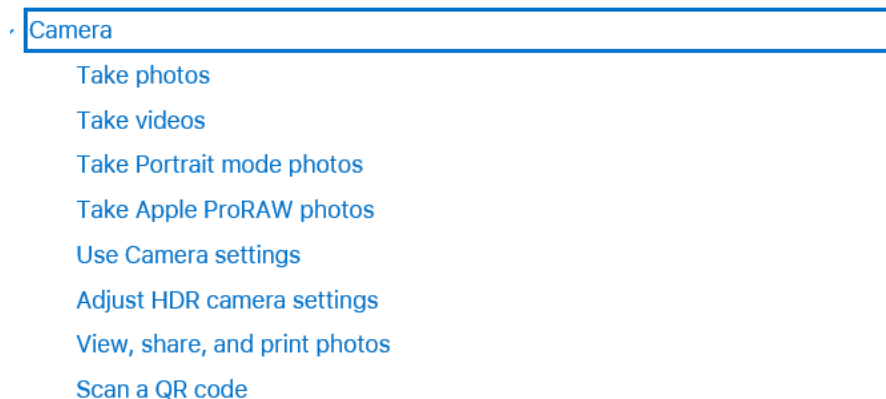
91. The foregoing features and capabilities of each of the '209 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising,



reflect Apple’s direct infringement by satisfying every element of at least claim 3 of the ’209 Patent, under 35 U.S.C. § 271(a).

92. Apple has indirectly infringed at least claim 3 of the ’209 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the ’209 Accused Products. Apple’s customers who purchase devices and components thereof and operate such devices and components in accordance with Apple’s instructions directly infringe one or more claims of the ’209 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://support.apple.com/en-us/HT207260>, <https://support.apple.com/en-us/HT205659>, <https://support.apple.com/en-us/HT211306>, or <https://support.apple.com/en-us/HT208118>.

93. For example, in the “iPhone User Guide” Apple instructs its customers to “Take photos,” “Take videos,” “Take Portrait mode photos,” “Take Apple ProRAW photos,” “Use Camera settings,” and “Adjust HDR camera settings.”




See <https://support.apple.com/guide/iphone/welcome/ios> (excerpt from iPhone User Guide).

94. Further, on its website, Apple instructs its customers to “Record a video” and “Take photos with your iPhone camera”:



## Take videos with your iPhone camera

Use Camera  to record videos on your iPhone and change modes to take slow-motion and time-lapse videos.

*Note:* For your privacy, a green dot appears in the top-right corner of the screen when Camera is in use. See [Control access to hardware features on iPhone](#).


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### Record a video

1. Choose Video mode.
2. Tap the Record button or press either volume button to start recording. While recording, you can do the following:
  - Press the white Shutter button to snap a still photo.
  - Pinch the screen to zoom in and out.
  - For a more precise zoom on [models with Dual and Triple camera systems](#), touch and hold 1x, then drag the slider to the left.
3. Tap the Record button or press either volume button to stop recording.

See <https://support.apple.com/guide/iphone/take-videos-iph61f49e4bb/ios>

## Take photos with the camera on iPhone

Learn how to take great photos with Camera  on your iPhone. Choose from camera modes such as Photo, Video, Pano, Time-lapse, Slo-mo, and Portrait (on [supported models](#)). Enhance your photos with camera features such as Night mode, Live Photos, filters, and Burst.

 Ask Siri. Say something like: "Open Camera." [Learn how to ask Siri](#).



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<https://support.apple.com/guide/iphone/take-photos-iph263472f78/13.0/ios/13.0>

95. Further, on its website, Apple instructs its customers to “Use camera modes,” “Take and edit photos,” “Use Portrait Mode on your iPhone,” “Use Night Mode on your iPhone,” “Adjust a photo’s light, exposure, and more,” and “make adjustments to exposure, color, and white balance.”

## Use camera modes on your iPhone, iPad, and iPod touch

Learn how to use Portrait, pano, slo-mo, and other camera modes on your device.

See <https://support.apple.com/en-us/HT207260>

## About Apple ProRAW

On iPhone 12 Pro and iPhone 12 Pro Max with iOS 14.3 or later, you can take photos in Apple ProRAW, which gives you greater creative control when editing photos.

Apple ProRAW combines the information of a standard RAW format along with iPhone image processing, which gives you more flexibility when editing the exposure, color, and white balance in your photo. With iOS 14.3 or later, your iPhone 12 Pro and iPhone 12 Pro Max can capture images in ProRAW format using any of its cameras, including when also using the Smart HDR, Deep Fusion, or Night mode features.\* You can edit ProRAW photos in the Photos app and other third-party photo apps.

\* You can't use ProRAW with Live Photos, in Portrait mode, or when shooting video.

<https://support.apple.com/en-us/HT211965>

96. Apple specifically intends for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '209 Patent pursuant to 35 U.S.C. § 271(b).

97. Apple has indirectly infringed at least claim 3 of the '209 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '209 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of

a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '209 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

98. For example, the '209 Accused Products include hardware (camera, image sensors, ambient light sensor, image signal processor (ISP), display processor, application processor,) and software (image processing/correction software, the "Camera" and "Photos" applications). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '209 Patent pursuant to 35 U.S.C. § 271(c).

99. Apple has been on notice of the '209 Patent since, at least, May 17, 2018, based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '209 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 3 of the '209 Patent.

100. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '209 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least May 17, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of

the '209 Patent, and that the '209 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '209 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '209 Patent.

101. Maxell has been damaged by Apple's infringement of the '209 Patent.

**COUNT 7 - INFRINGEMENT OF U.S. PATENT NO. 8,130,284**

102. Maxell incorporates paragraphs 1-101 above by reference.

103. U.S. Patent No. 8,130,284 (the "'284 Patent," attached hereto at Exhibit 7) duly issued on March 6, 2012 and is entitled *Imaging apparatus and method for controlling white balance*.

104. Maxell is the owner by assignment of the '284 Patent and possesses all rights under the '284 Patent, including the exclusive right to recover for past and future infringement.

105. Apple has directly infringed one or more claims of the '284 Patent in this District and elsewhere in Texas, including at least claim 7 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2nd Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no.

A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688), iPhone 6 Plus (model nos. A1522 and A1524), iPhone 6 (model nos. A1549 and A1586), iPhone SE (model nos. A1723 and A1662), iPhone 5s (model nos. A1453 and A1533), and iPhone 5c (model nos. A1456 and A1532)); Apple iPads (*e.g.*, iPad mini 2 (model nos. A1489 and A1490), iPad mini 3 (model nos. A1599 and A1600), iPad mini 4 (model nos. A1538 and A1550), iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9” 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9” (3rd generation) (model nos. A1876, A1895, A2014), iPad Pro 12.9” (4th generation) (model nos. A2229, A2069, and A2232), iPad Pro (10.5”) (model nos. A1701 and A1709), iPad Pro (12.9”) (model nos. A1584 and A1652), iPad Pro (9.7”) (model nos. A1673, A1674, and A1675), iPad Pro 11” (1st generation) (model nos. A1980, A2013, and A1934), iPad Pro 11” (2nd generation) (model nos. A2068, A2228, and A2230), iPad (5th generation) (model nos. A1822 and A1823), iPad (6th generation) (model nos. A1893 and A1954), iPad (7th gen.) (model nos. A2197, A2200, and A2198), iPad (8th gen) (model nos. A2270, A2428, A2429, and A2430), iPad Air (model nos. A1474 and A1475), iPad Air 2 (model nos. A1566 and A1567), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153) iPad Air (4th generation) (model nos. A2316, A2324, A2325, and A2072)); and Apple iPod Touches (*e.g.*, iPod Touch 5th generation (model nos. A1509 and A1421), iPod Touch 6th generation (model no. A1574), and iPod Touch 7th generation (model no. A2178)) (collectively, “the ’284 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’284 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery

and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

106. Each of the '284 Accused Products is an imaging apparatus that includes object distance detecting means (*e.g.*, component for implementing “Depth Control”) for detecting distance of an object being imaged, a zoom value detecting means (*e.g.*, Camera zoom controller) for detecting a zoom value, an object brightness detection means (*e.g.*, Ambient sensor and/or ISP) for detecting brightness of the object, white balance controlling means (*e.g.*, ISP) for correcting the color properties/white balance of images based on object distance, zoom, and brightness. For example, the following excerpts from Apple’s websites provide non-limiting examples of the '209 Accused Products infringing at least claim 7 of the '284 Patent:

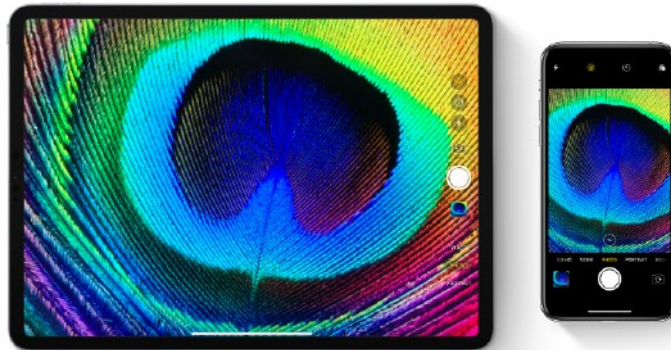
## Use camera modes on your iPhone, iPad, and iPod touch

Learn how to use Portrait, pano, slo-mo, and other camera modes on your device.

See <https://support.apple.com/en-us/HT207260>

## Take and edit photos with your iPhone, iPad, and iPod touch

Learn how to take detailed photos with the Camera on your iPhone, iPad, and iPod touch. Then make the moment look just right with the powerful editing tools built directly into your device.



[Open your Camera](#)

[Take a picture](#)

[Edit your photo](#)

[Find your photo](#)

See <https://support.apple.com/en-us/HT205659>

## Use Night mode on your iPhone

On supported iPhone models, you can use Night mode to capture photos when the camera detects a low-light environment.

You can use Night mode on: iPhone 12, iPhone 12 mini, iPhone 12 Pro, iPhone 12 Pro Max, iPhone 11, iPhone 11 Pro, and iPhone 11 Pro Max.

<https://support.apple.com/en-us/HT211306>

## Use Portrait mode on your iPhone

With Portrait mode, the camera creates a depth-of-field effect, which lets you capture photos with a sharp focus on the subject and a blurred background.

Before you get started, make sure that you have the [latest version of iOS](#), and that you have an [iPhone that supports Portrait mode](#).

<https://support.apple.com/en-us/HT208118>

## About Apple ProRAW

On iPhone 12 Pro and iPhone 12 Pro Max with iOS 14.3 or later, you can take photos in Apple ProRAW, which gives you greater creative control when editing photos.

Apple ProRAW combines the information of a standard RAW format along with iPhone image processing, which gives you more flexibility when editing the exposure, color, and white balance in your photo. With iOS 14.3 or later, your iPhone 12 Pro and iPhone 12 Pro Max can capture images in ProRAW format using any of its cameras, including when also using the Smart HDR, Deep Fusion, or Night mode features.\* You can edit ProRAW photos in the Photos app and other third-party photo apps.

\* You can't use ProRAW with Live Photos, in Portrait mode, or when shooting video.

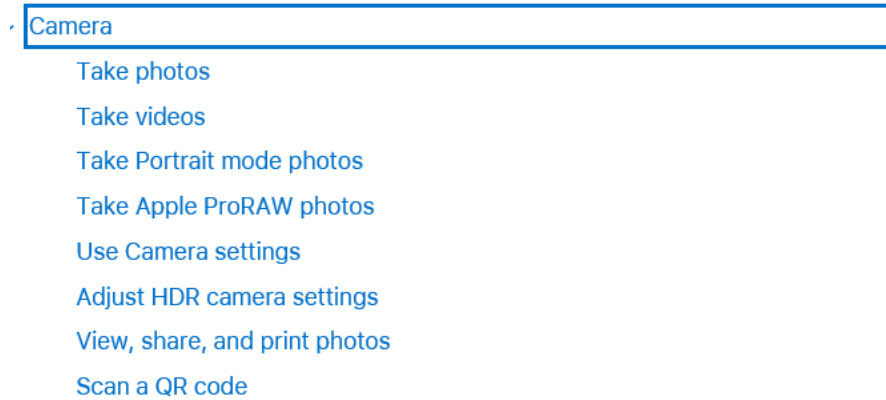
<https://support.apple.com/en-us/HT211965>

107. The foregoing features and capabilities of each of the '284 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claim 7 of the '284 Patent, under 35 U.S.C. § 271(a).

108. Apple has indirectly infringed at least claim 7 of the '284 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '284 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '284 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://support.apple.com/en-us/HT207260>, <https://support.apple.com/en-us/HT205659>, <https://support.apple.com/en-us/HT211306>, or <https://support.apple.com/en-us/HT208118>.




109. For example, in the “iPhone User Guide” Apple instructs its customers to “Take photos,” “Take videos,” “Take Portrait mode photos,” “Take Apple ProRAW photos,” “Use Camera settings,” and “Adjust HDR camera settings.”



See <https://support.apple.com/guide/iphone/welcome/ios> (excerpt from iPhone User Guide)

110. Further, on its website, Apple instructs its customers to “Record a video” and “Take photos with your iPhone camera”:

## Take videos with your iPhone camera

Use Camera  to record videos on your iPhone and change modes to take slow-motion and time-lapse videos.

*Note:* For your privacy, a green dot appears in the top-right corner of the screen when Camera is in use. See [Control access to hardware features on iPhone](#).

### Record a video

1. Choose Video mode.
2. Tap the Record button or press either volume button to start recording. While recording, you can do the following:
  - Press the white Shutter button to snap a still photo.
  - Pinch the screen to zoom in and out.
  - For a more precise zoom on [models with Dual and Triple camera systems](#), touch and hold 1x, then drag the slider to the left.
3. Tap the Record button or press either volume button to stop recording.

See <https://support.apple.com/guide/iphone/take-videos-iph61f49e4bb/ios>

## Take photos with the camera on iPhone

Learn how to take great photos with Camera 📷 on your iPhone. Choose from camera modes such as Photo, Video, Pano, Time-lapse, Slo-mo, and Portrait (on [supported models](#)). Enhance your photos with camera features such as Night mode, Live Photos, filters, and Burst.

🗣️ Ask Siri. Say something like: “Open Camera.” [Learn how to ask Siri.](#)



<https://support.apple.com/guide/iphone/take-photos-iph263472f78/13.0/ios/13.0>

111. Further, on its website, Apple instructs its customers to “Use camera modes,” “Take and edit photos,” “Use Portrait Mode on your iPhone,” “Use Night Mode on your iPhone,” “Adjust a photo’s light, exposure, and more,” and “make adjustments to exposure, color, and white balance.”

## Use camera modes on your iPhone, iPad, and iPod touch

Learn how to use Portrait, pano, slo-mo, and other camera modes on your device.

See <https://support.apple.com/en-us/HT207260>

## About Apple ProRAW

On iPhone 12 Pro and iPhone 12 Pro Max with iOS 14.3 or later, you can take photos in Apple ProRAW, which gives you greater creative control when editing photos.

Apple ProRAW combines the information of a standard RAW format along with iPhone image processing, which gives you more flexibility when editing the exposure, color, and white balance in your photo. With iOS 14.3 or later, your iPhone 12 Pro and iPhone 12 Pro Max can capture images in ProRAW format using any of its cameras, including when also using the Smart HDR, Deep Fusion, or Night mode features.\* You can edit ProRAW photos in the Photos app and other third-party photo apps.

\* You can't use ProRAW with Live Photos, in Portrait mode, or when shooting video.

<https://support.apple.com/en-us/HT211965>

112. Apple specifically intends for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '284 Patent pursuant to 35 U.S.C. § 271(b).

113. Apple has indirectly infringed at least claim 7 of the '284 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '284 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '284 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

114. For example, the '284 Accused Products include hardware (camera, image sensors, ambient light sensor, image signal processor (ISP), display processor, application processor,) and software (image processing/correction software, the "Camera" and "Photos" applications). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention

and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '284 Patent pursuant to 35 U.S.C. § 271(c).

115. Apple has been on notice of the '284 Patent since, at least, May 17, 2018, based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '284 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 7 of the '284 Patent.

116. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '284 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least May 17, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '284 Patent, and that the '284 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '284 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '284 Patent.

117. Maxell has been damaged by Apple's infringement of the '284 Patent.

**COUNT 8 - INFRINGEMENT OF U.S. PATENT NO. 10,264,456**

118. Maxell incorporates paragraphs 1-117 above by reference.

119. U.S. Patent No. 10,264,456 (the “’456 Patent,” attached hereto at Exhibit 8) duly issued on April 16, 2019 and is entitled *Mobile terminal and control method thereof*.

120. Maxell is the owner by assignment of the ’456 Patent and possesses all rights under the ’456 Patent, including the exclusive right to recover for past and future infringement.


121. Apple has directly infringed one or more claims of the ’456 Patent in this District and elsewhere in Texas, including at least claims 16-20 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2nd Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778); Apple Watches (*e.g.*, Watch Series 4 (model nos. A1975, A1976, A1977, and A1978), Watch Series 5 (model nos. A2092, A2093, A2094, and A2095), Watch SE or Nike (model nos. A2351, A2352, A2353, and A2354), Watch Series 6 (model nos. A2291, A2292, A2293, and A2294)); and MacBook products with FaceTime functionality (*e.g.*, MacBook (model nos. 9,1 and 10,1), MacBook Air (model nos. 9,1 and 10,1), and MacBook Pro (model nos. 17,1; 16,4; 16,3; 16,2; 16,1; 15,4; 15,3; and 15,2)) (collectively, “the ’456 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that

incorporate infringing functionalities. For the avoidance of doubt, the '456 Accused Products are identified to describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

122. Each of the '456 Accused Products is a mobile terminal configured to switch between an unlocked state and a locked state. Further, each of the '456 Accused Products includes a transceiver which performs short-range wireless communication (*e.g.*, Bluetooth, NFC, and/or Wi-Fi). Each of the '456 Accused Products also includes a memory which previously stores information about another mobile terminal (*e.g.*, Apple Watch). Each of the '456 Accused Products also includes a controller (*e.g.*, A12/A13 chipset) which switches the mobile terminal between an unlocked state and a locked state based on an authentication input (*e.g.*, password) to the mobile terminal. Further, each of the '456 Accused Products transmits information to the another mobile terminal (*e.g.*, Apple Watch) for switching a state of the another mobile terminal from a locked state to an unlocked state when certain conditions are met including that the mobile terminal is in a locked state, the another mobile terminal is in a locked state, and the another mobile terminal is within communication range of the short-range wireless communications of the transceiver. For example, the following excerpts from Apple's websites provide non-limiting examples of the '456 Accused Products infringing at least claims 16-20 of the '456 Patent:

### Unlock Apple Watch with iPhone

You can unlock Apple Watch whenever you unlock your iPhone.

1. Open the Settings app  on your Apple Watch.
2. Tap Passcode, then turn on Unlock with iPhone.

You can also open the Apple Watch app on your iPhone, tap My Watch, tap Passcode, then turn on Unlock with iPhone.

Your iPhone must be within normal Bluetooth range (about 33 feet or 10 meters) of your Apple Watch to unlock it.

 **Tip:** Your Apple Watch passcode can be different from your iPhone passcode—in fact, it's better to use different passcodes.

See <https://support.apple.com/guide/watch/unlock-apple-watch-apd0e1e73b6f/watchos>

## About Activation Lock on your Apple Watch

Find My iPhone includes a feature called Activation Lock that's designed to prevent anyone else from using your Apple Watch if it's ever lost or stolen.


Find My iPhone and Activation Lock for your Apple Watch require watchOS 2 or later, and they turn on automatically when you [set up Find My iPhone](#) on your paired iPhone. With Activation Lock, your Apple ID and password are required before anyone can:

- Unpair your Apple Watch from your iPhone.
- Pair and use your Apple Watch with a new iPhone.
- Turn off Find My iPhone on your device.

This can help you keep your device secure, even if it's in the wrong hands, and can improve your chances of recovering it. Even if you erase your device remotely, Activation Lock can continue to deter anyone from reactivating your device without your permission. All you need to do is keep Find My iPhone turned on, and remember your Apple ID and password.

### Check to see if Activation Lock is on

Follow these steps on your paired iPhone to see if Activation Lock is turned on:

1. Open the Apple Watch app on your iPhone.
2. Tap the My Watch tab, then tap your watch name at the top of the screen.
3. Tap .

If you see Find My Apple Watch, then Activation Lock is on.



See <https://support.apple.com/en-us/HT205009>

123. The foregoing features and capabilities of each of the '456 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claims 16-20 of the '456 Patent, under 35 U.S.C. § 271(a).

124. Apple has indirectly infringed at least claims 16-20 of the '456 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '456 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '456 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://support.apple.com/en-us/HT205009>, or <https://support.apple.com/guide/watch/unlock->

[apple-watch-apd0e1e73b6f/watchos](#). Apple specifically intends for its customers to use the accused functionality in an infringing manner.

125. For example, in the iPhone User Guide Apple instructs its customers to “Use Apple Watch with iPhone” and “Set up and pair your Apple Watch with iPhone.”

## Use Apple Watch with iPhone

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### Pair Apple Watch with iPhone

On your iPhone, tap the Apple Watch app , then follow the onscreen instructions.

See [Set up and pair your Apple Watch with iPhone](#) in the Apple Watch User Guide. (Apple Watch sold separately.)

See <https://support.apple.com/guide/iphone/apple-watch-iph9252a427b/ios>

126. Apple is thereby liable for infringement of the '456 Patent pursuant to 35 U.S.C. § 271(b).

127. Apple has indirectly infringed at least claims 16-20 of the '456 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '456 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '456 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

128. For example, the '456 Accused Products include a transceiver and/or Apple Watch application. These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material



part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '456 Patent pursuant to 35 U.S.C. § 271(c).

129. The '456 Patent is a continuation of U.S. Patent No. 10,212,586, which has been asserted against Apple since at least the March 15, 2019 filing of Maxell's Complaint in Case No. 5:19-cv-00036 (E.D. Tex.). On information and belief, Apple is aware of the patents related to U.S. Patent No. 10,212,586, including the '456 Patent, and has thus been on notice of the '456 Patent since its issuance on April 16, 2019. Maxell's prior, pending case against Apple sets forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe U.S. Patent No. 10,212,586 and thus has also placed Apple on notice of its infringement of the '456 Patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 16-20 of the '456 Patent.

130. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '456 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least the '456 Patent's issuance on April 16, 2019, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '456 Patent, and that the '456 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '456 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '456 Patent.

131. Maxell has been damaged by Apple's infringement of the '456 Patent

**COUNT 9 - INFRINGEMENT OF U.S. PATENT NO. 10,418,069**

132. Maxell incorporates paragraphs 1-131 above by reference.

133. U.S. Patent No. 10,418,069 (the "'069 Patent," attached hereto at Exhibit 9) duly issued on September 17, 2019 and is entitled *Recording and reproducing apparatus and method thereof*.

134. Maxell is the owner by assignment of the '069 Patent and possesses all rights under the '069 Patent, including the exclusive right to recover for past and future infringement.

135. Apple has directly infringed one or more claims of the '069 Patent in this District and elsewhere in Texas, including at least claim 12 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2nd Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778)); and Apple iPads (*e.g.*, iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9" 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9" (3rd generation) (model nos. A1876, A1895, A2014), iPad Pro 12.9" (4th generation) (model

nos. A2229, A2069, and A2232), iPad Pro 11” (1st generation) (model nos. A1980, A2013, and A1934), iPad Pro 11” (2nd generation) (model nos. A2068, A2228, and A2230), iPad (6th generation) (model nos. A1893 and A1954), iPad (7th gen.) (model nos. A2197, A2200, and A2198), iPad (8th gen) (model nos. A2270, A2428, A2429, and A2430), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153) iPad Air (4th generation) (model nos. A2316, A2324, A2325, and A2072)) (collectively, “the ’069 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’069 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

136. Each of the ’069 Accused Products is a recording and producing apparatus that includes a camera, a video recording unit (memory), a face-recognition component (*e.g.*, ISP), a reproduction unit (*e.g.*, ISP, display, GPU), that reproduce stored images including faces in various modes, and a control unit (*e.g.*, ISP, A12/13 chipset) that controls the reproduction and the various modes. For example, the following excerpts from Apple’s websites provide non-limiting examples of the ’069 Accused Products infringing at least claim 12 of the ’069 Patent:

## Use the People album in Photos on your iPhone, iPad, or iPod touch

The Photos app recognizes the faces of people in your photos and groups them together. You can name the people in your photos, mark your favorites, and more.

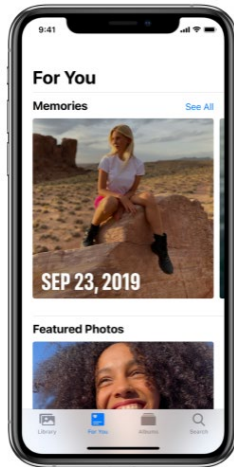
### Here's how it works

The Photos app scans your photos to help you quickly recognize the people, scenes, and objects within the photos. Depending on the number of photos that you have, you can watch a Memory movie of them. And when you have iCloud Photos turned on, the people you favorite or name stay up to date across your Apple devices.

See <https://support.apple.com/en-us/HT207103>

### View Memories in Photos on iPhone

The Photos app scans your library to automatically create collections of photos and videos called *Memories*. Memories include photos and a movie, which is automatically edited for you and set to music. You can edit a Memory movie and share it with others. You can also make a Memory from an album you create.



See <https://support.apple.com/guide/iphone/view-memories-iphd4f70e68f/ios>

137. The foregoing features and capabilities of each of the '069 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claim 12 of the '069 Patent, under 35 U.S.C. § 271(a).

138. Apple has indirectly infringed at least claim 12 of the '069 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '069 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '069 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least support pages on its websites, such as those located at: <https://support.apple.com/en-us/HT207103> or <https://support.apple.com/guide/iphone/view-memories-iph4f70e68f/ios>. For example, on its website, Apple instructs its customers to "Find your friends in the People album," "Use the People Album," and "View Memories in Photos":

### Find your friends in the People album

Photos organizes the images of your family and friends in your People album. You'll see a face thumbnail for each person your device recognizes.

1. Open the Photos app.
2. Tap the Albums tab.
3. Tap the People album.

Want to see even more People in your album? Just open a photo of someone that you want to add, then swipe up to see a thumbnail of that person under People. Tap on the thumbnail. Tap Add Name, then type the person's name (or tap the name if Photos suggests it). Tap Next. If the app has found that person's face in any other photos, it shows them to you. Confirm the photos that you want to associate with the name, then tap Done.

See <https://support.apple.com/en-us/HT207103>.

## Use the People album in Photos on your iPhone, iPad, or iPod touch

The Photos app recognizes the faces of people in your photos and groups them together. You can name the people in your photos, mark your favorites, and more.

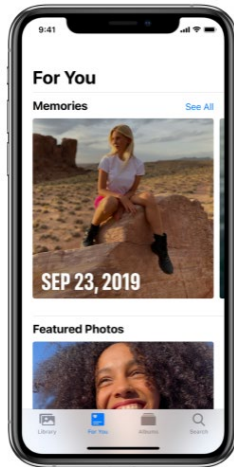
### Here's how it works

The Photos app scans your photos to help you quickly recognize the people, scenes, and objects within the photos. Depending on the number of photos that you have, you can watch a Memory movie of them. And when you have iCloud Photos turned on, the people you favorite or name stay up to date across your Apple devices.

See <https://support.apple.com/en-us/HT207103>

### View Memories in Photos on iPhone

The Photos app scans your library to automatically create collections of photos and videos called *Memories*. Memories include photos and a movie, which is automatically edited for you and set to music. You can edit a Memory movie and share it with others. You can also make a Memory from an album you create.



See <https://support.apple.com/guide/iphone/view-memories-iph4f70e68f/ios>

139. Thus, Apple specifically intends for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '069 Patent pursuant to 35 U.S.C. § 271(b).

140. Apple has indirectly infringed at least claim 12 of the '069 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '069 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '069 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

141. For example, the '069 Accused Products include hardware (camera, memory, image signal processor, image sensors, and application processor) and software (image processing software, and "Camera" and "Photos" applications). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '069 Patent pursuant to 35 U.S.C. § 271(c).

142. The '069 Patent is a continuation of U.S. Patent No. 10,176,848, which has been asserted against Apple since at least the July 16, 2020 filing of Maxell's Complaint in Case No. 6:20-cv-00646 (W.D. Tex.) and in International Trade Commission Investigation proceeding *Certain Mobile Electronic Devices and Laptop Computers*, Inv. No. 337-TA-1215. On information and belief, Apple is aware of the patents related to U.S. Patent No. 10,176,848, including the '069 Patent, and has thus been on notice of the '069 Patent since its issuance on September 17, 2019. Maxell's prior, pending case against Apple sets forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe U.S. Patent No. 10,176,848 and thus has also placed Apple on notice of its infringement of the '069 Patent. By the

time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 12 of the '069 Patent.

143. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '069 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least the '069 Patent's issuance on September 17, 2019, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '069 Patent, and that the '069 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '069 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '069 Patent.

144. Maxell has been damaged by Apple's infringement of the '069 Patent

**COUNT 10 - INFRINGEMENT OF U.S. PATENT NO. 7,072,673**

145. Maxell incorporates paragraphs 1-144 above by reference.

146. U.S. Patent No. 7,072,673 (the "'673 Patent," attached hereto at Exhibit 10) duly issued on July 4, 2006 and is entitled *Radio handset and position location system*.

147. Maxell is the owner by assignment of the '673 Patent and possesses all rights under the '673 Patent, including the exclusive right to recover for past and future infringement.

148. Apple has directly infringed one or more claims of the '673 Patent in this District and elsewhere in Texas, including at least claim 15 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its



telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2nd Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688), iPhone 6 Plus (model nos. A1522 and A1524), iPhone 6 (model nos. A1549 and A1586), iPhone SE (model nos. A1723 and A1662), iPhone 5s (model nos. A1453 and A1533), and iPhone 5c (model nos. A1456 and A1532)); Apple iPads with cellular functionality (*e.g.*, iPad Air (model nos. A1475), iPad mini 2 (model no. A1490), iPad Air 2 (model no. A1567), iPad mini 3 (model no. A1600), iPad mini 4 (model no. A1550), iPad Pro (10.5”) (model no. A1709), iPad Pro (12.9”) (model no. A1652), iPad Pro (9.7”) (model nos. A1674 and A1675), iPad (5th generation) (model nos. A1823), iPad (6th generation) (model no. A1954), iPad Pro (12.9” 2nd generation) (model no. A1671), and iPad Pro (12.9” 3rd generation) (model nos. A2014 and A1895), iPad Pro 11” (1st generation) (model no. A2013), iPad Pro 11” (2nd generation) (model nos. A2068 and A2228), iPad 6th generation (model no. A1954), iPad (7th gen.) (model no. A2200), iPad (8th gen) (model nos. A2428, A2429, and A2430), iPad Pro 12.9” (3rd generation) (model nos. A1895 and A2014) (4th generation) (model no. A2069), iPad Air 3 (model nos. A2123 and A2153), and iPad mini 5 (model nos. A2124 and A2126)); and Apple

Watch with cellular functionality (*e.g.*, Watch Series 6 (model nos. A2375 and A2376), Watch Series 5 (model nos. A2094 and A2095), Watch SE (model nos. A2353 and A2354), Series 4 (model no. A2007 and A2008), Watch Series 3 (model nos. A1860 and A1861)) (collectively, “the ’673 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’673 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

149. Each of the ’673 Accused Products is a radio handset that includes storing means for storing information of a plurality of radio stations (memory accessible to baseband modem), a signal receiver (*e.g.*, cellular transceiver), a delay profile calculator (*e.g.*, cellular modem), and a CPU (*e.g.*, baseband modem and/or A12/A13 chipset) that calculate position of the radio handset using cellular signal. For example, the following excerpts from Apple’s websites provide non-limiting examples of the ’673 Accused Products infringing at least claim 15 of the ’673 Patent:

<b>Location</b>	Built-in GPS/GNSS
	Digital compass
	Wi-Fi
	Cellular
	iBeacon microlocation

<https://www.apple.com/iphone-11/specs/>

## Overview

Core Location provides services that determine a device’s geographic location, altitude, and orientation, or its position relative to a nearby iBeacon device. The framework gathers data using all available components on the device, including the Wi-Fi, GPS, Bluetooth, magnetometer, barometer, and cellular hardware.

<https://developer.apple.com/documentation/corelocation>

## Turn Location Services and GPS on or off on your iPhone, iPad, or iPod touch

Learn how to turn GPS and Location Services on or off for individual apps.

### How to give apps permission to use your location


Some apps might not work unless you turn on Location Services.<sup>1</sup> The first time an app needs to access your Location Services information, you'll get a notification asking for permission. Choose one of these options:

- Tap Allow to let the app use Location Services information as needed.
- Tap Don't Allow to prevent access.<sup>2</sup>
- Tap Ask Next Time to choose Always While Using App, Allow Once, or Don't Allow.

iOS devices might use Wi-Fi and Bluetooth to determine your location. GPS and cellular location are available on iPhone and iPad (Wi-Fi + Cellular) models.

See <https://support.apple.com/en-us/HT207092>.

## View maps on iPhone

In the Maps app , find your location on a map and zoom in and out to see the detail you need.

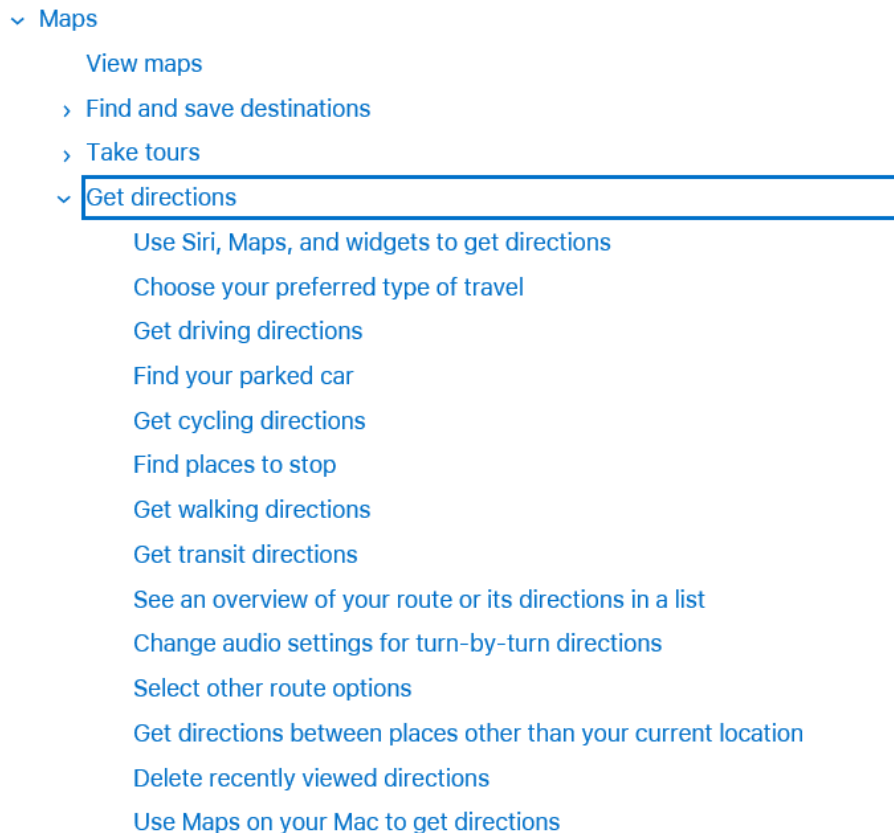
To find your location, iPhone must be connected to the Internet, and Location Services must be on. (See [Set which apps can access your location on iPhone](#).) Cellular data rates may apply. (See [View or change cellular settings on iPhone](#).)

See <https://support.apple.com/guide/iphone/view-maps-iph10d7bdf26/13.0/ios/13.0>.

150. The foregoing features and capabilities of each of the '673 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claim 15 of the '673 Patent, under 35 U.S.C. § 271(a).

151. Apple has indirectly infringed at least claim 15 of the '673 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '673 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '673 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://support.apple.com/guide/iphone/view-maps-iph10d7bdf26/13.0/ios/13.0>, or <https://support.apple.com/en-us/HT207092>.

152. For example, in the iPhone User Guide, Apple instructs its customers to “View Maps” and “Get directions,” which includes calculating cellular-based positioning.



153. Further, on its website, Apple instructs its customers to “Turn Location Services and GPS on” and “Show your current location”:

## Turn Location Services and GPS on or off on your iPhone, iPad, or iPod touch

Learn how to turn GPS and Location Services on or off for individual apps.

### How to give apps permission to use your location

Some apps might not work unless you turn on Location Services.<sup>1</sup> The first time an app needs to access your Location Services information, you'll get a notification asking for permission. Choose one of these options:

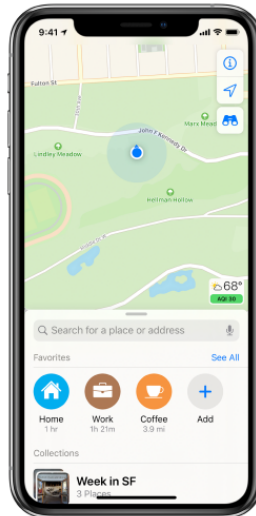
- Tap Allow to let the app use Location Services information as needed.
- Tap Don't Allow to prevent access.<sup>2</sup>
- Tap Ask Next Time to choose Always While Using App, Allow Once, or Don't Allow.

iOS devices might use Wi-Fi and Bluetooth to determine your location. GPS and cellular location are available on iPhone and iPad (Wi-Fi + Cellular) models.

See <https://support.apple.com/en-us/HT207092>.

### Show your current location

Tap .



See <https://support.apple.com/guide/iphone/view-maps-iph10d7bdf26/13.0/ios/13.0>.

154. Apple specifically intends for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '673 Patent pursuant to 35 U.S.C. § 271(b).

155. Apple has indirectly infringed at least claim 15 of the '673 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '673 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '673 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

156. For example, the '673 Accused Products include hardware (memory, cellular modem, cellular transceiver, and a CPU) and software (Maps application, Core Location Framework, and/or modem location firmware). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '673 Patent pursuant to 35 U.S.C. § 271(c).

157. Apple has been on notice of the '673 Patent since, at least, October 9, 2018, based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '673 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial,

Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 15 of the '673 Patent.

158. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '673 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least October 9, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '673 Patent, and that the '673 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '673 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '673 Patent.

159. Maxell has been damaged by Apple's infringement of the '673 Patent

**COUNT 11 - INFRINGEMENT OF U.S. PATENT NO. 10,529,372**

160. Maxell incorporates paragraphs 1-159 above by reference.

161. U.S. Patent No. 10,529,372 (the "'372 Patent," attached hereto at Exhibit 11) duly issued on January 7, 2020 and is entitled *Digital information recording apparatus, reproducing apparatus and transmitting apparatus*.

162. Maxell is the owner by assignment of the '372 Patent and possesses all rights under the '372 Patent, including the exclusive right to recover for past and future infringement.

163. The '372 patent is directed to remotely preventing creation of unauthorized digital copies of video content after the content has been provided to a second location. When allowing the patent application, the USPTO performed a patent eligibility test and found the following:

For the instant case the Examiner use the streamlined eligibility analysis. E.g. Page 5, line 15-27 of the specification disclose "...an object of the present invention is to provide more specifically a unit for preventing circulation of unauthorized copies and permitting the user to perform conditional playback and the like. Another object of the invention is to provide a unit for eliminating the aforementioned anxiety of the copyright holders and inconvenience of the users through a method of meeting the compatibility between profits of the user and the copyright holder." So according to the specification, the conditional playback would at least improve user's convenience in the copy right technology. Evident of conditional playback is recited in the claims. For Example claim 2, "...wherein, in a case where the controller confirms that an elapsed time from a start of the first period is within the first period and an elapsed time from a start of an initial reproduction of the audio/video information is within the second period, the controller is configured to, based on at least a portion of the control information detected by the detector, allow the reproducer to reproduce the audio/video information, wherein, in a case where the controller confirms that a reproduction of the audio/video information is started before an end of the first period and the reproduction is continuing at the end of the first period, the controller is configured to, based on at least a portion of the control

information detected by the detector, allow the reproducer to reproduce the audio/video information to an end of the audio/video information beyond the end of the first period and thereafter not allow the reproducer to start an another reproduction of the audio/video information even if an elapsed time from a start of an initial reproduction of the audio/video information is within the second period".

USPTO Notice of Allowance dated August 26, 2019.

164. The claims of the '372 Patent are patent-eligible because they are "directed to" a specific solution arising in the technological context of digital video transmission and to control "reproduction of the audio/video information after distribution and at a location different from a distribution location" such that the digital content is sent with detailed "control information" that controls the user's local system to enforce certain fine-grained, event-based temporal restrictions on data retention and playback. Those restrictions include at least a retention period and a playback period commenced at the start of playback. That solution provides greater protection to rights owners and a better playback experience to viewers than did previous systems. By embedding the control information within the content, the distributing device of the content is able to remote control the reproduction device at a second location. Further, the claims are directed to ensuring that the video content and control information is distributed and reproduced in a secure manner



such that the transmitted content is encrypted and a decrypts is required to decrypt the content prior to reproduction.

165. The claims of the '372 Patent are directed to a reproducing system and transmitting system that improves upon then-existing computer technology, by providing a system that permits the user to perform conditional playback that are controlled via distribution of control information. The claims are directed to solving problems arising specifically in the context of digital video transmission, and they do so in a manner necessarily rooted in that technology by, for example, ensuring that the reproducing device is controlled remotely during reproduction via control information and by ensuring that the content is transmitted, stored, and reproduced in a secure manner by relying on encryption techniques.

166. The claims of the '372 Patent are directed to the use of multiple, specific temporal access controls, including the retention and playback period, in a particular technical context and do not preempt the concept of managing the expiration of access periods for audio/video content.

167. Further, the claims of the '372 Patent are directed to an inventive system having reciting a technological solution—a specific way of using temporal (rather than number-based) copy restrictions and the use of two specific periods (retention and playback) in the context of digital content transmission along with requiring a specific apparatus including a “receiver configured to receive an audio/video information encrypted according to a predetermined encryption method,” “a memory configured to at least temporarily store at least a portion of the audio/video information and at least a portion of the control information,” “a detector configured to detect at least a portion of the control information;” “a decryptor configured to decrypt the audio/video information encrypted according to the predetermined encryption,” “a reproducer configured to reproduce at least a portion of the audio/video information from the memory,” and

“a controller configured to control at least the reproducer” and performing various control operations to reproduce the audio/video information. Thus, the claims are directed to a specific inventive apparatus.

168. Apple has directly infringed one or more claims of the '372 Patent in this District and elsewhere in Texas, including at least claims 1-6, 16-21, and 31-36 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2nd Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no. A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688)); Apple iPads (*e.g.*, iPad mini 4 (model nos. A1538 and A1550), iPad mini 5 (model nos. A2133, A2124, and A2126), iPad Pro (12.9” 2nd generation) (model nos. A1670 and A1671), iPad Pro 12.9” (3rd generation) (model nos. A1876, A1895, and A2014), iPad Pro 12.9” (4th generation) (model nos. A2229, A2069, and A2232), iPad Pro 11” (1st generation) (model nos. A1980, A2013, and A1934), iPad Pro 11” (2nd generation) (model nos. A2068, A2228, and A2230), iPad (5th generation) (model nos. A1822 and A1823), iPad (6th generation) (model nos. A1893 and A1954), iPad (7th gen.) (model nos. A2197, A2200, and A2198), iPad

(8th gen) (model nos. A2270, A2428, A2429, and A2430), iPad Air (3rd generation) (model nos. A2152, A2123, and A2153) iPad Air (4th generation) (model nos. A2316, A2324, A2325, and A2072)); Apple iPod Touches (*e.g.*, iPod Touch 6th generation (model no. A1574) and iPod Touch 7th generation (model no. A2178)); and MacBook products with Apple TV and/or iTunes functionality (*e.g.*, MacBook (model nos. 9,1 and 10,1), MacBook Air (model nos. 9,1 and 10,1), and MacBook Pro (model nos. 17,1; 16,4; 16,3; 16,2; 16,1; 15,4; 15,3; and 15,2)) (collectively, “the ’372 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’372 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

169. Each of the ’372 Accused Products is a reproducing system and includes a “receiver configured to receive an audio/video information encrypted according to a predetermined encryption method,” (*e.g.*, WiFi or cellular chipsets), “a memory configured to at least temporarily store at least a portion of the audio/video information and at least a portion of the control information,” (*e.g.*, memory for storing content downloaded from Apple TV), “a detector configured to detect at least a portion of the control information;” (*e.g.*, A12/A13 chipset), “a decryptor configured to decrypt the audio/video information encrypted according to the predetermined encryption,” (*e.g.*, decryption for content downloaded from Apple TV), “a reproducer configured to reproduce at least a portion of the audio/video information from the memory,” (*e.g.*, A12/A13 chipset, Audio/Video decoders) and “a controller configured to control at least the reproducer,” (*e.g.*, A12/A13 chipset) and performing various control operations to reproduce the audio/video information. For example, the following excerpts from Apple’s websites

provide non-limiting examples of the '372 Accused Products infringing at least claims 1-6, 16-21, and 31-36 of the '372 Patent:

#### **Video Playback**

Video formats supported: HEVC, H.264, MPEG-4 Part 2, and Motion JPEG

Supports Dolby Vision, HDR10, and HLG

Up to 4K HDR AirPlay for mirroring, photos, and video out to Apple TV (2nd generation or later) or AirPlay 2-enabled smart TV

Video mirroring and video out support: Up to 1080p through Lightning Digital AV Adapter and Lightning to VGA Adapter (adapters sold separately)<sup>7</sup>

See <https://www.apple.com/iphone-11/specs/>

## **Rent movies from the Apple TV app**

Learn how to find and rent movies in the Apple TV app, then download or stream them on your iPhone, iPad, iPod touch, Apple TV, Mac, PC, smart TV, or streaming device.

See <https://support.apple.com/en-us/HT201611>

### **Rent, then watch now or later**

Search for a movie in the Apple TV app,\* then look for an option to rent it. Not all movies are available to rent.



When you rent a movie, you have 30 days to start watching it. As soon as you play your rental, your rental is available for 48 hours. Your rental automatically deletes from your library 30 days after you rent it or 48 hours after you start watching it, whichever is sooner.

See <https://support.apple.com/en-us/HT201611>

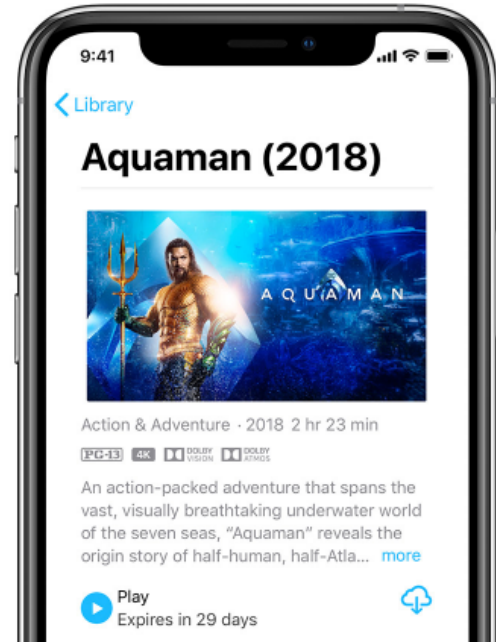
## Find your rental, then download or stream it

Follow the steps below for your device.

### On your iPhone, iPad, or iPod touch

1. Open the Apple TV app and go to the Library tab.
2. Look for Rentals. If you don't see Rentals, then there aren't any current rentals associated with the Apple ID that you're signed in with.
3. To stream your rental, tap . Or tap  to download your rental so you can watch it offline.

As soon as you press play, you have 48 hours to finish watching your rental.



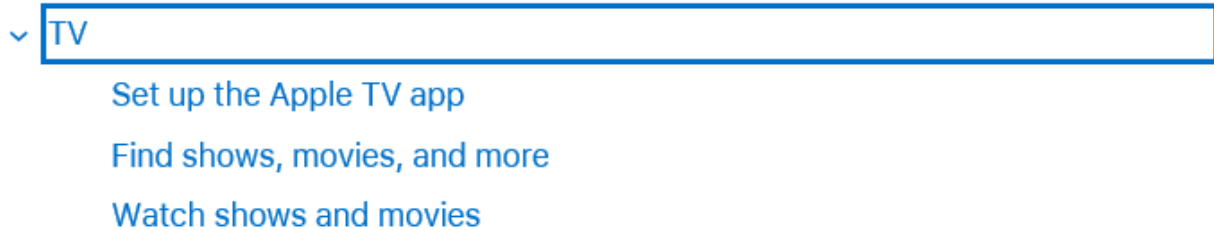
See <https://support.apple.com/en-us/HT201611>

170. The foregoing features and capabilities of each of the '372 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claims 1-6, 16-21, and 31-36 of the '372 Patent, under 35 U.S.C. § 271(a).

171. Apple has indirectly infringed at least claims 1-6, 16-21, and 31-36 of the '372 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '372 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '372 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user

guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios> or <https://support.apple.com/en-us/HT201611>.

172. For example, in the iPhone User Guide, Apple instructs its customers to “Set up the Apple TV app,” “Find shows, movies, and more,” and “Watch shows and movies.”



See <https://support.apple.com/guide/iphone/welcome/ios> (excerpt from iPhone User Guide)

173. Further, on its website, Apple instructs its customers to “Rent movies from the Apple TV app,” “Find your rental, then download or stream it”:

## Rent movies from the Apple TV app

Learn how to find and rent movies in the Apple TV app, then download or stream them on your iPhone, iPad, iPod touch, Apple TV, Mac, PC, smart TV, or streaming device.

See <https://support.apple.com/en-us/HT201611>

Apple specifically intends for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '372 Patent pursuant to 35 U.S.C. § 271(b).

174. Apple has indirectly infringed at least claims 1-6, 16-21, and 31-36 of the '372 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '372 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the

same to be especially made or especially adapted for use in infringement of the '372 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

175. For example, the '372 Accused Products include hardware (cellular or WiFi transceivers and modems, memory for storing downloaded content, A12/A13 chipset, audio/video decoder, decrypt or, and a controller) and software (*e.g.*, Apple TV applications and other iOS/macOS software for performing the decryption and control operations). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '372 Patent pursuant to 35 U.S.C. § 271(c).

176. Apple has been on notice of the '372 Patent since, at least, the filing of this Complaint. The Complaint sets forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '372 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 1-6, 16-21, and 31-36 of the '372 Patent.

177. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '372 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at least the filing of this Complaint, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '372 Patent, and that the '372 Patent is valid. On information and belief, Apple

could not reasonably, subjectively believe that its actions do not constitute infringement of the '372 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '372 Patent.

178. Maxell has been damaged by Apple's infringement of the '372 Patent.

179. Maxell has been damaged by Apple's infringement of the '673 Patent

**COUNT 12 - INFRINGEMENT OF U.S. PATENT NO. 6,484,034**

180. Maxell incorporates paragraphs 1-179 above by reference.

181. U.S. Patent No. 6,484,034 (the "'034 Patent," attached hereto at Exhibit 12) duly issued on November 19, 2002 and is entitled *Radio handset and position location system*.

182. Maxell is the owner by assignment of the '034 Patent and possesses all rights under the '034 Patent, including the exclusive right to recover for past and future infringement.

183. Apple has directly infringed one or more claims of the '034 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhones (*e.g.*, iPhone 12 (model nos. A2172 and A2403), iPhone 12 mini (model nos. A2176 and A2399), iPhone 12 Pro (model nos. A2341 and A2407), iPhone 12 Pro Max (model nos. A2342 and A2411), iPhone 11 (model nos. A2111 and A2221), iPhone 11 Pro (model nos. A2160 and A2215), iPhone 11 Pro Max (model nos. A2161 and A2218), iPhone SE 2nd Generation (model nos. A2275 and A2296), iPhone XS (model no. A1920), iPhone XS Max (model no. A1921), iPhone XR (model no.



A1984), iPhone X (model nos. A1865 and A1901), iPhone 8 Plus (model nos. A1864 and A1897), iPhone 8 (model nos. A1863 and A1905), iPhone 7 Plus (model nos. A1661 and A1784), iPhone 7 (model nos. A1660 and A1778), iPhone 6s Plus (model nos. A1634 and A1687), iPhone 6s (model nos. A1633 and A1688), iPhone 6 Plus (model nos. A1522 and A1524), iPhone 6 (model nos. A1549 and A1586), iPhone SE (model nos. A1723 and A1662), iPhone 5s (model nos. A1453 and A1533), and iPhone 5c (model nos. A1456 and A1532)); Apple iPads with cellular functionality (*e.g.*, iPad Air (model nos. A1475), iPad mini 2 (model no. A1490), iPad Air 2 (model no. A1567), iPad mini 3 (model no. A1600), iPad mini 4 (model no. A1550), iPad Pro (10.5”) (model no. A1709), iPad Pro (12.9”) (model no. A1652), iPad Pro (9.7”) (model nos. A1674 and A1675), iPad (5th generation) (model nos. A1823), iPad (6th generation) (model no. A1954), iPad Pro (12.9” 2nd generation) (model no. A1671), and iPad Pro (12.9” 3rd generation) (model nos. A2014 and A1895), iPad Pro 11” (1st generation) (model no. A2013), iPad Pro 11” (2nd generation) (model nos. A2068 and A2228), iPad 6th generation (model no. A1954), iPad (7th gen.) (model no. A2200), iPad (8th gen) (model nos. A2428, A2429, and A2430), iPad Pro 12.9” (3rd generation) (model nos. A1895 and A2014) (4th generation) (model no. A2069), iPad Air 3 (model nos. A2123 and A2153), and iPad mini 5 (model nos. A2124 and A2126)); and Apple Watch with cellular functionality (*e.g.*, Watch Series 6 (model nos. A2375 and A2376), Watch Series 5 (model nos. A2094 and A2095), Watch SE (model nos. A2353 and A2354), Series 4 (model no. A2007 and A2008), Watch Series 3 (model nos. A1860 and A1861)) (collectively, “the ’034 Accused Products”). Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the ’034 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery

and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

184. Each of the '034 Accused Products is a radio handset that includes signal reception means for receiving signals from a plurality of radio stations (*e.g.*, cellular transceivers and cellular modem), reception timing analysis means for analyzing reception timings of signals received by the signal reception means (*e.g.*, modem), radio station selection means for selecting radio stations to be used in a position calculation (*e.g.*, cellular modem), position calculation means for calculating a position of a signal reception point of the handset by using the reception timings of the signals from the selected radio stations (*e.g.*, cellular modem and/or A12/A13 chipset) that calculate position of the radio handset using cellular signal such a manner that when reception timings of signals from two or more of the radio stations cannot be separated from one another, the radio station selection means excludes a signal from at least one of said two or more radio stations. For example, the following excerpts from Apple's websites provide non-limiting examples of the '034 Accused Products infringing at least claim 1 of the '034 Patent:

#### **Location**

Built-in GPS/GNSS  
Digital compass  
Wi-Fi  
Cellular  
iBeacon microlocation

<https://www.apple.com/iphone-11/specs/>

#### **Overview**

Core Location provides services that determine a device's geographic location, altitude, and orientation, or its position relative to a nearby iBeacon device. The framework gathers data using all available components on the device, including the Wi-Fi, GPS, Bluetooth, magnetometer, barometer, and cellular hardware.

<https://developer.apple.com/documentation/corelocation>

## Turn Location Services and GPS on or off on your iPhone, iPad, or iPod touch

Learn how to turn GPS and Location Services on or off for individual apps.

### How to give apps permission to use your location


Some apps might not work unless you turn on Location Services.<sup>1</sup> The first time an app needs to access your Location Services information, you'll get a notification asking for permission. Choose one of these options:

- Tap Allow to let the app use Location Services information as needed.
- Tap Don't Allow to prevent access.<sup>2</sup>
- Tap Ask Next Time to choose Always While Using App, Allow Once, or Don't Allow.

iOS devices might use Wi-Fi and Bluetooth to determine your location. GPS and cellular location are available on iPhone and iPad (Wi-Fi + Cellular) models.

See <https://support.apple.com/en-us/HT207092>.

## View maps on iPhone

In the Maps app , find your location on a map and zoom in and out to see the detail you need.

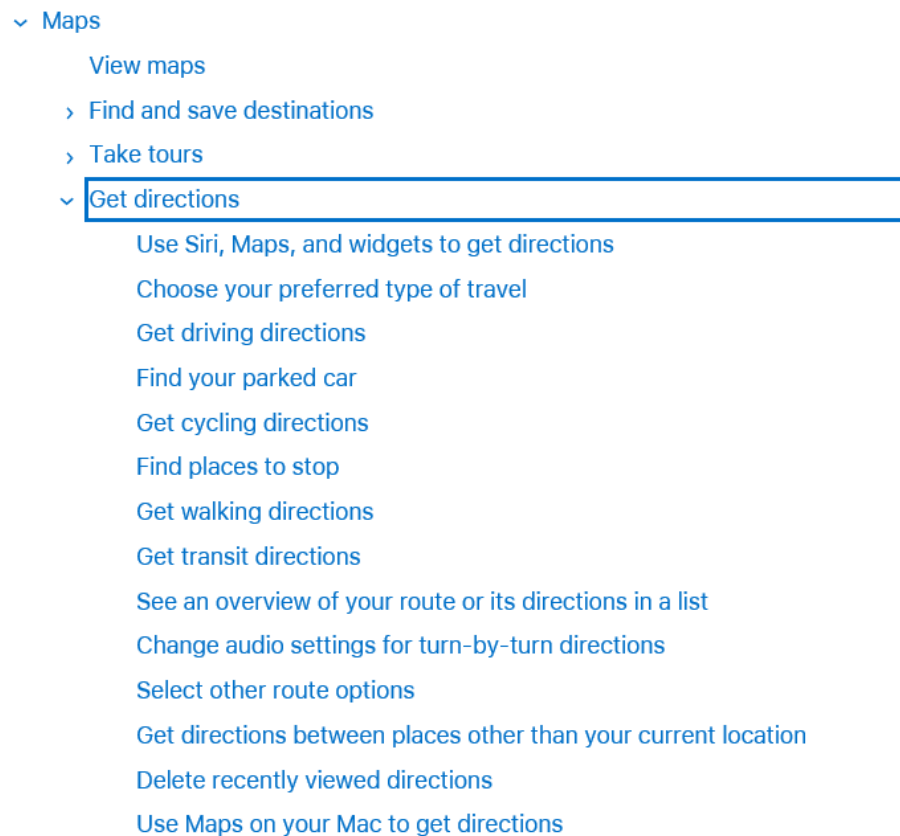
To find your location, iPhone must be connected to the Internet, and Location Services must be on. (See [Set which apps can access your location on iPhone](#).) Cellular data rates may apply. (See [View or change cellular settings on iPhone](#).)

See <https://support.apple.com/guide/iphone/view-maps-iph10d7bdf26/13.0/ios/13.0>.

185. The foregoing features and capabilities of each of the '034 Accused Products and Apple's description and/or demonstration thereof, including in user manuals and advertising, reflect Apple's direct infringement by satisfying every element of at least claim 1 of the '034 Patent, under 35 U.S.C. § 271(a).

186. Apple has indirectly infringed at least claim 1 of the '034 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '034 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '034 Patent in violation of 35

U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <https://support.apple.com/guide/iphone/welcome/ios>, <https://support.apple.com/guide/iphone/view-maps-iph10d7bdf26/13.0/ios/13.0>, or <https://support.apple.com/en-us/HT207092>. For example, in the iPhone User Guide, Apple instructs its customers to “View Maps” and “Get directions,” which includes calculating cellular-based positioning.



187. Further, on its website, Apple instructs its customers to “Turn Location Services and GPS on” and “Show your current location”:

## Turn Location Services and GPS on or off on your iPhone, iPad, or iPod touch

Learn how to turn GPS and Location Services on or off for individual apps.

### How to give apps permission to use your location

Some apps might not work unless you turn on Location Services.<sup>1</sup> The first time an app needs to access your Location Services information, you'll get a notification asking for permission. Choose one of these options:

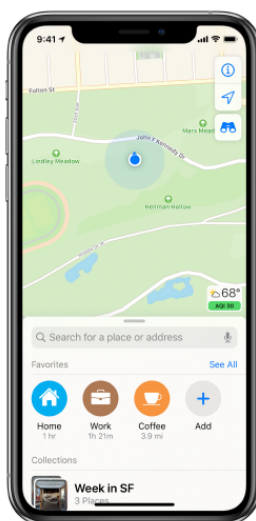
- Tap Allow to let the app use Location Services information as needed.
- Tap Don't Allow to prevent access.<sup>2</sup>
- Tap Ask Next Time to choose Always While Using App, Allow Once, or Don't Allow.

iOS devices might use Wi-Fi and Bluetooth to determine your location. GPS and cellular location are available on iPhone and iPad (Wi-Fi + Cellular) models.

See <https://support.apple.com/en-us/HT207092>.

### Show your current location

Tap .



See <https://support.apple.com/guide/iphone/view-maps-iph10d7bdf26/13.0/ios/13.0>.

188. Apple specifically intends for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '034 Patent pursuant to 35 U.S.C. § 271(b).

189. Apple has indirectly infringed at least claim 1 of the '034 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '034 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '034 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

190. For example, the '034 Accused Products include hardware (memory, cellular modem, cellular transceiver, and a CPU) and software (Maps application, Core Location Framework, and/or modem location firmware). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '034 Patent pursuant to 35 U.S.C. § 271(c).

191. Apple has been on notice of the '034 Patent since, at least, October 9, 2018, based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '034 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '034 Patent.

192. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '034 Patent, which has been duly issued by the USPTO,

and is presumed valid. For example, since at least October 9, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '034 Patent, and that the '034 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '034 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '034 Patent.

193. Maxell has been damaged by Apple's infringement of the '034 Patent.

### **PRAYER FOR RELIEF**

WHEREFORE, Maxell prays for relief as follows:

194. A judgment declaring that Apple has infringed and is infringing one or more claims of the '719, '978, '729, '491, '695, '209, '284, '456, '069, '673, '372, and '034 Patents;

195. A judgment awarding Maxell compensatory damages as a result of Apple's infringement of one or more claims of the '719, '978, '729, '491, '695, '209, '284, '456, '069, '673, '372, and '034 Patents, together with interest and costs, consistent with lost profits and in no event less than a reasonable royalty;

196. A judgment awarding Maxell treble damages and pre-judgment interest under 35 U.S.C. § 284 as a result of Apple's willful and deliberate infringement of one or more claims of the '719, '978, '729, '491, '695, '209, '284, '456, '069, '673, '372, and '034 Patents;

197. A judgment declaring that this case is exceptional and awarding Maxell its expenses, costs, and attorneys' fees in accordance with 35 U.S.C. §§ 284 and 285 and Rule 54(d) of the Federal Rules of Civil Procedure;

198. A grant of preliminary and permanent injunctions enjoining Defendant from further acts of infringement of one or more claims of the '719, '978, '729, '491, '695, '209, '284, '456, '069, '673, '372, and '034 Patents; and

199. Such other and further relief as the Court deems just and proper.

**JURY TRIAL DEMANDED**

Maxell hereby demands a trial by jury.

Dated: February 19, 2021

By: /s/ Michael Chibib

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